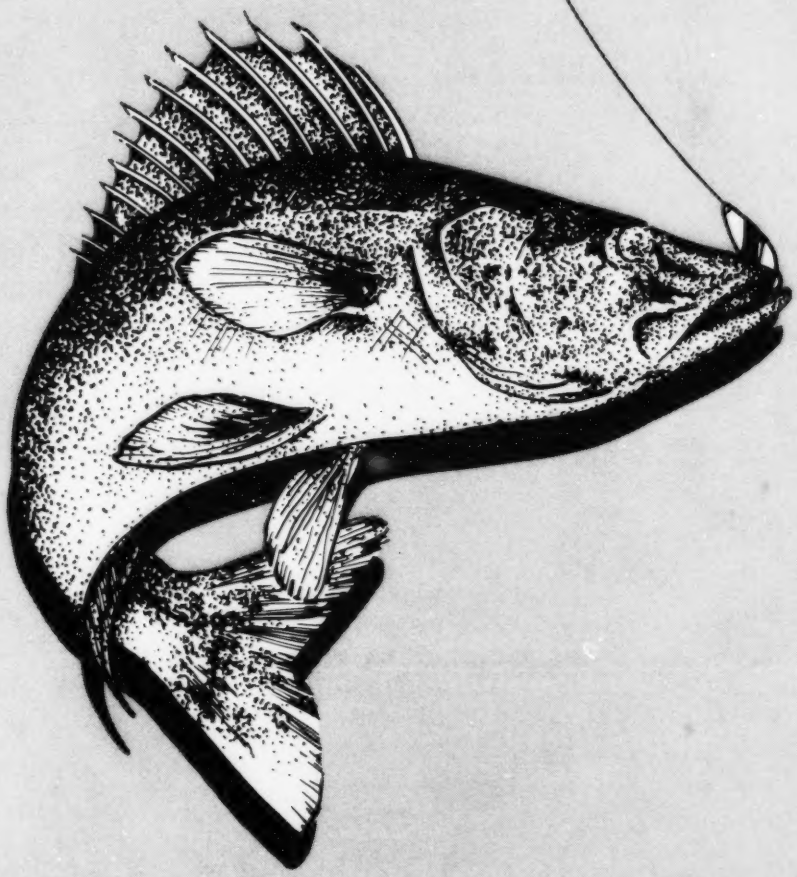
SIOUX LOOKOUT DISTRICT FISHERIES MANAGEMENT PLAN

1987-2000



Ontario

Ministry of
Natural
Resources

Sioux Lookout District Fisheries Management Plan

1987–2000

Ministry of Natural Resources

Hon. Vincent G. Kerrio
Minister

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Printed in Manitoba, Canada

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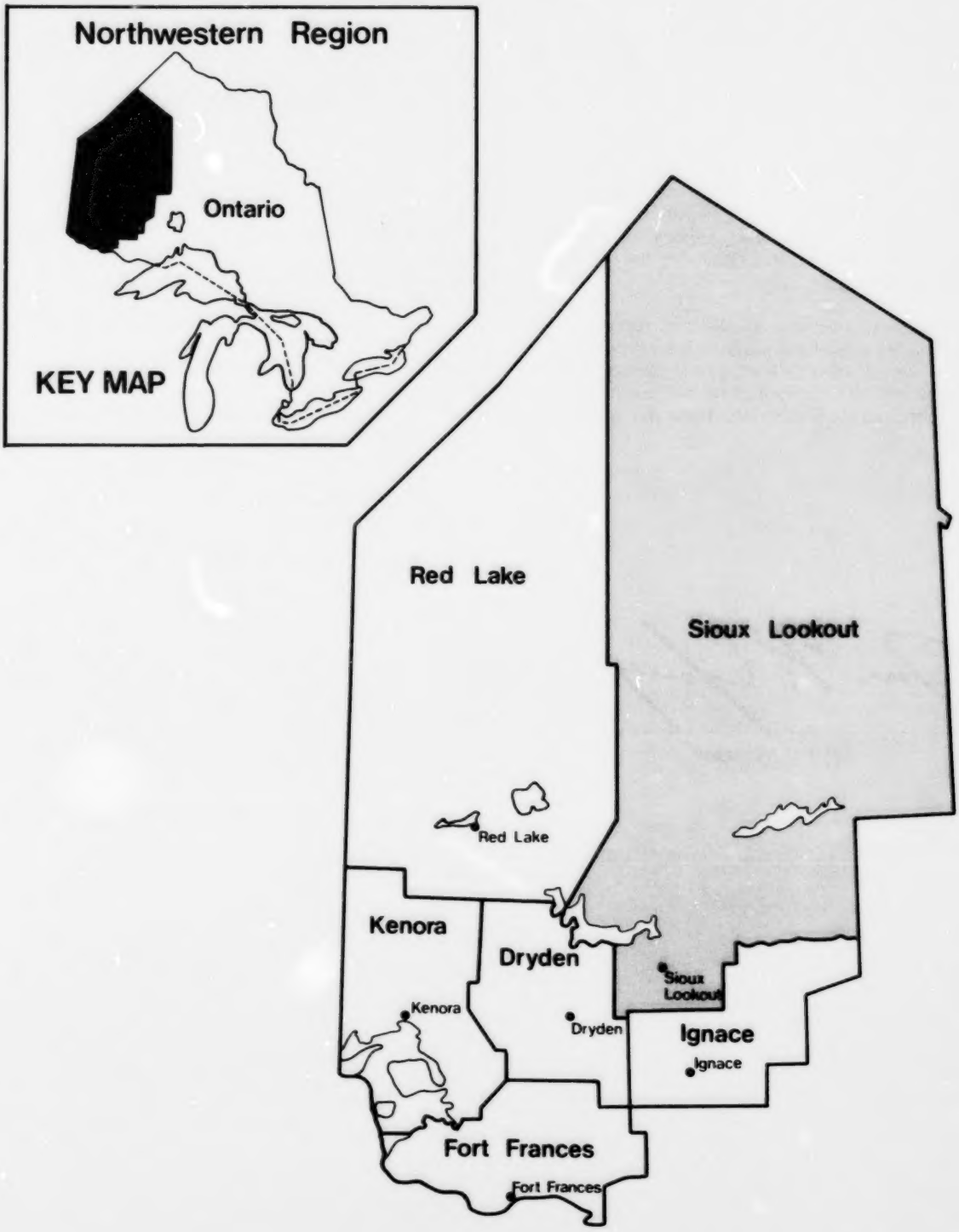
District and Regional Setting



PREFACE

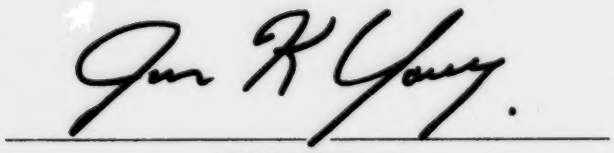
The purpose of this Fisheries Management Plan is to indicate the fisheries management direction that will be undertaken in the Sioux Lookout District, up to the year 2000.

This plan contains an overview of the fisheries resource base, fisheries management objectives, approved strategies and tactics and the first implementation schedule. The implementation schedule outlines the operational tactics and specific actions that are designed to implement the management strategies.

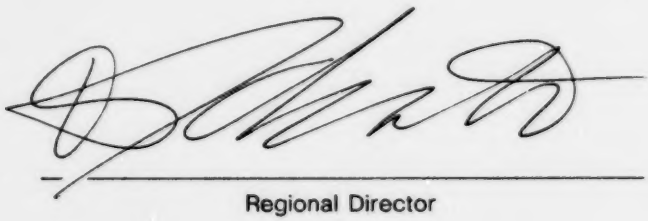
The preparation of this plan involved summarizing detailed fisheries information into a Background Information and Optional Management Strategies document which was presented to the public for their input and comments. Responses from the public were analyzed and taken into consideration in the preparation of a draft plan. The draft plan was then presented to the public. Comments received from the public were incorporated into the preparation of this plan.

During 1986, district staff conducted a detailed review of the Lac Seul Management Plan. Since that plan was reviewed recently, it was decided not to propose any new strategies or tactics for Lac Seul. Instead, recommendations proposed during the review of the Lac Seul Management Plan have been incorporated into the fisheries plan. The results of this review are outlined in Section 4 of this plan.

The district fisheries management plan will provide guidance to local fisheries managers and indicate future management direction to the public.



District Manager



Regional Director

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1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this fisheries management plan is to outline the direction of fisheries management efforts within the Sioux Lookout District up to the year 2000. Both long term management direction and short term management tactics are identified.

The way in which these tactics will be carried out during the next five years, 1987–1991, is outlined in the implementation schedule. Annual fisheries work program plans will be developed in accordance with this implementation schedule and will describe the fisheries management operations to be conducted. The actual number of projects carried out in a particular year will depend on available funding.

1.2 PLANNING PROCESS

This fisheries management plan was prepared within the framework of the resource planning and management system of the Ministry of Natural Resources. Broad program direction for optimizing resource use including fisheries is provided by the *Northwestern Ontario Strategic Land Use Plan*. Individual resource management plans, like the fisheries plan, describe how particular resources will be used to achieve the program objectives and targets.

Open houses and meetings with interest groups were the main methods used to attain public input into this plan. A tabloid which summarized the proposed management strategies and tactics, was widely distributed in all communities within the district. Draft management plans were also sent to all persons or groups who had previously expressed an interest in the fisheries plan.

All comments received from the public were considered in the preparation of the final plan. A summary of public consultation efforts is provided in Appendix 3.

1.2.1 Plan Review and Plan Amendment

Planning is a continuous process and must be responsive to changing needs and new information. Thus the targets, strategies and tactics presented in this document are subject to revision based on such factors as changes in government policy and new or refined resource information. To accommodate changes, the Fisheries Management Plan will be reviewed at specific intervals.

It may also be necessary to amend the management plan prior to the formal review period.

Any changes made to the fisheries management plan as a result of plan amendment or plan review must be approved by the District Manager and Regional Director. The public review and approval process used to prepare this management plan will be followed.

1.3 POLICY AND TECHNICAL DIRECTION

This management plan has been prepared according to Ministry of Natural Resources policy. General policy direction and targets were provided through the *Northwestern Ontario Strategic Land Use Plan*. In addition, operational components of this plan will, where required, conform to the legislative requirements of the Environmental Assessment Act (R.S.O. 1975).

Technical direction was provided by the Ministry of Natural Resources Planning Manual for Fisheries Management Plans. All management strategies and tactics are based upon the principles stated in the *Strategic Plan for Ontario Fisheries* (S.P.O.F.) and are consistent with accepted fisheries management principles and practices and current technology.

A number of different background documents were used in the preparation of this fisheries management plan. These documents are available for viewing at the Sioux Lookout District Office and include:.

1. Sioux Lookout District Fisheries Management Plan: Terms of Reference.
2. Sioux Lookout District Fisheries Management Plan: Background Information and Optional Management Strategies. 1987–2000 A Summary.
3. Lac Seul Management Plan.

Integration of the fisheries management plan with other district programs was achieved through an interdisciplinary planning team approach. Planning team members represented land management, forest management, operations, parks, fish and wildlife management and the Ministry of Tourism and Recreation. The planning team was responsible for the review and evaluation of this management plan to ensure that fisheries management recommendations were consistent with the direction of other programs.

2.0 DISTRICT FISHERIES PERSPECTIVE

2.1 THE FISHERIES RESOURCE

The Sioux Lookout District is one of six administrative districts in the Northwestern Administrative Region of the Ministry of Natural Resources (Fig 1).

The Sioux Lookout District has a total of 22,255 lakes greater than 10 hectares (ha), with a total water area of 1,307,890 ha. Of these lakes, 2,413 are greater than 100 ha. The largest and most important sport fishery in the district is Lac Seul, covering an area of 143,700 ha.

The major fish species inhabiting lakes and rivers within the district are: walleye, northern pike, lake trout, muskellunge, lake whitefish, brook trout, smallmouth bass, yellow perch, sturgeon, white sucker and minnows.

Walleye, northern pike and perch often co-exist together and are widely distributed throughout the district. They are found in most lakes and many rivers. The muskellunge and smallmouth bass range in the district is limited to Lac Seul, Vermilion, Little Vermilion, Marchington, Pelican, Abram and Minnitaki Lakes and other smaller lakes in the vicinity of the Town of Sioux Lookout.

There are 31 known lake trout lakes in the district. Large lakes with lake trout populations include Savant, Vermilion, Little Vermilion, Birch, Big Trout and Echoing Lakes. Native brook trout populations are limited in their distribution. Brook trout occur in the Echoing, Fawn, Otter, Asheweig and Albany River systems.

The district stocks five lakes close to Sioux Lookout with brook trout. The lakes are stocked annually on a put-grow-and-take basis. The majority of these fish are harvested by local residents during the winter ice fishing season.

2.2 PRESENT AND POTENTIAL FISH YIELDS

The total allowable yield for all fish species from all lakes within the district is 5,834,622 kg/yr (Table 1). Approximately 74% of the total allowable yield are sport fish species, i.e. walleye, northern pike, lake trout, yellow perch, smallmouth bass, muskellunge and brook trout. The remaining 26% of the total allowable yield consists of fish species not normally harvested by anglers, e.g. white fish, suckers, minnows, etc.

2.3 CURRENT AND PROJECTED RESOURCE USE

The key users of the fisheries resources in the Sioux Lookout District are:

a) Anglers — residents of Ontario
— other residents of Canada
— non-residents of Canada (majority are residents of U.S.A.)

b) Commercial Fishermen (bait)

c) Commercial Fishermen (food)

d) Indian People (subsistence)

2.3.1 Sport Fishing

The major sport fish species sought by anglers are walleye, northern pike and lake trout. Although interest in smallmouth bass, brook trout and muskellunge is increasing, these species still form only a small portion of the annual sport fish harvest.

The 1980 Provincial Angler Survey data indicated that 22,200 anglers fished in the district that year for a total of 194,000 angler days. Approximately 86% of the fishermen were non-residents of Canada and they accounted for 72% of the angler days. The number of non-residents angling in the Northwestern Region appears to have increased steadily since 1970 (Provincial Angler Survey).

In 1980 the total harvest by recreational anglers was estimated to be 729,142 kg. The angler harvest was composed of: walleye 454,357 kg (62%), northern pike 240,780 kg (33%), smallmouth bass 22,703 kg (3%), lake trout 11,056 kg (1.5%) and perch 244 kg.

The projected use to the year 2000 for resident anglers is expected to remain at its current level. For non-residents it is expected that angling pressure will increase by 25%. Thus, the number of anglers is expected to rise to 23,865 by the year 2000 and their angling effort is projected to be 228,920 angler days. The demand for sport fish will increase with the increase in angler days. It is estimated that angler demand for both residents and non-residents will reach 839,310 kg by the year 2000.

In 1985 the revenue generated by the tourism industry through the provision of accommodation was estimated at $5,848,000 (Ministry of Tourism and Recreation, 1986).

The total value to this area is actually considerably higher since this figure does not include spin off benefits such as the purchase of tackle, food, gasoline, etc. and the creation of full-time and part-time employment opportunities.

TABLE 1A

CURRENT HARVEST LEVELS BY USER GROUP

WATERBODIES	SPECIES	NATIVE SUBSISTENCE HARVEST (KG/YR)	SPORT HARVEST (KG/YR) RES.	SPORT HARVEST (KG/YR) NON-RES.	COMMERCIAL HARVEST (KG/YR)	TOTAL HARVEST (KG/YR)	ALLOWABLE YIELD (KG/YR)
Lac Seul	walleye	7,770	20,145	114,156		142,071	120,499
	n. pike	1,942	11,370	64,430		77,742	109,639
	whitefish	8,741			39,772	48,513	104,871
	sm. bass		89	503		592	23,834
	perch		37	207		244	
	sturgeon						N/A
	muskellunge		N/A	N/A		N/A	9,533
	tullibee				5,131	5,131	N/A
	TOTAL	**18,453**	**31,641**	**179,296**	**44,903**	**274,293**	**368,376**
District Lakes (excluding Lac Seul)	walleye	60,298	48,009	272,047	66,895	447,249	1,803,429
	n. pike	15,074	24,747	140,233	17,921	197,975	1,326,312
	lake trout	14,700	1,659	9,397		25,756	75,354
	whitefish	67,835			143,010	210,845	1,363,102
	sm. bass		3,317	18,796		22,113	178,452
	perch						699,862
	sturgeon	9,625			4,276	13,901	N/A
	muskellunge						19,775
	TOTAL	**167,532**	**77,732**	**440,473**	**232,102**	**917,839**	**5,466,286**
All District Lakes	walleye	68,068	68,154	386,203	66,895	589,320	1,923,928
	n. pike	17,016	36,117	204,663	17,921	275,717	1,435,951
	lake trout	14,700	1,659	9,397		25,756	75,354
	whitefish	76,576			182,722	259,298	1,467,973
	sm. bass		3,406	19,299		22,705	202,286
	perch		37	207		244	709,395
	muskellunge						29,308
	sturgeon	9,625			4,276	13,901	N/A
	tullibee				5,131	5,131	
	TOTAL	**185,985**	**109,373**	**619,769**	**276,945**	**1,192,072**	**5,834,662**

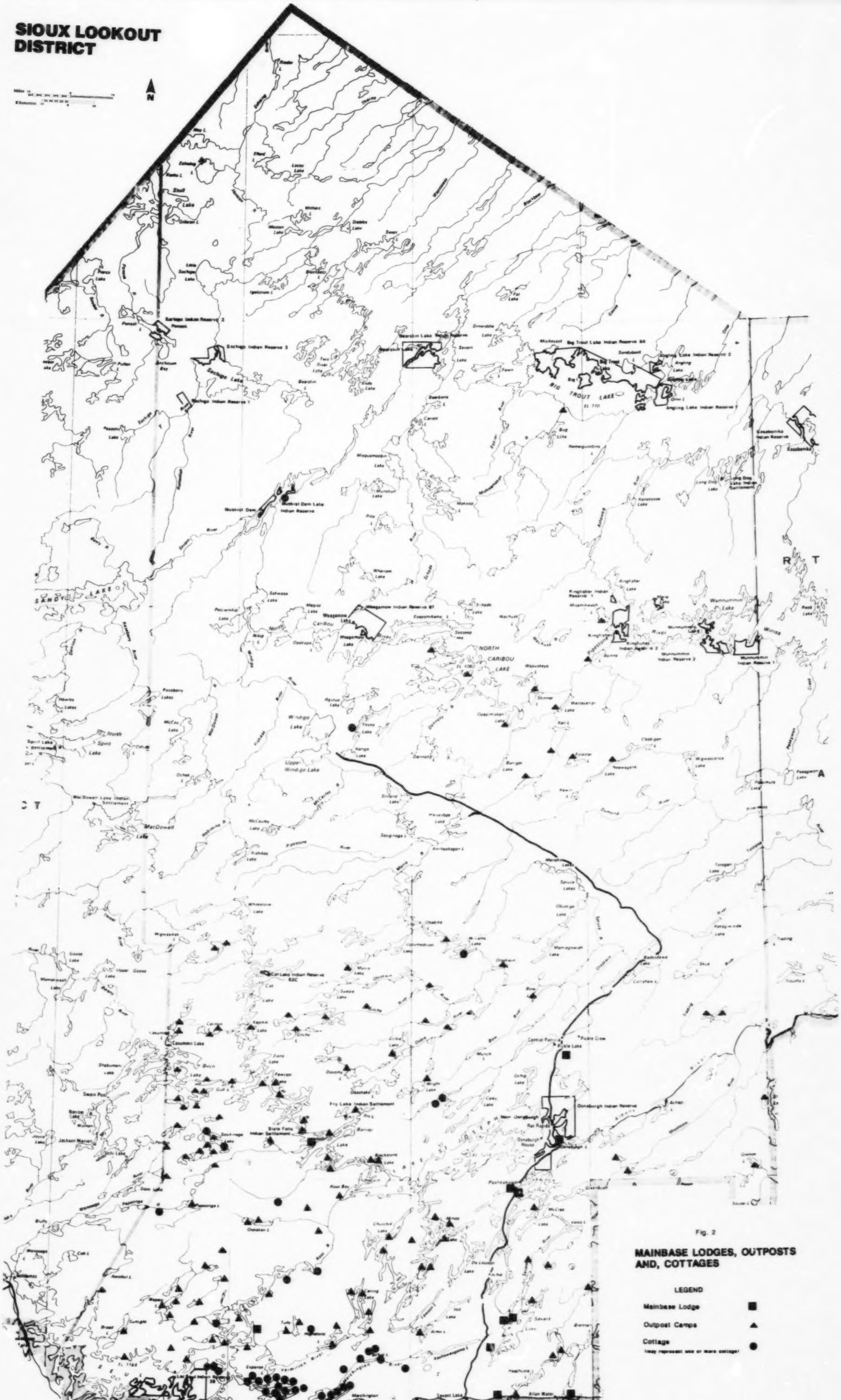
TABLE 1B

PROJECTED HARVEST LEVELS BY USER GROUPS

WATERBODIES	SPECIES	NATIVE SUBSISTENCE HARVEST (KG/YR)	SPORT HARVEST (KG/YR) RES.	SPORT HARVEST (KG/YR) NON-RES.	COMMERCIAL HARVEST (KG/YR)	TOTAL HARVEST (KG/YR)	ALLOWABLE YIELD (KG/YR)
Lac Seul	walleye	12,121	20,145	114,156		146,422	120,499
	n. pike	3,030	11,370	64,430		78,830	109,639
	whitefish	13,636			39,772	53,408	104,871
	lake trout						
	sm. bass		89	503		592	23,834
	perch		37	258		295	
	sturgeon*		N/A	N/A			N/A
	muskellunge		N/A	N/A			9,533
	TOTAL	**28,787**	**31,641**	**179,347**	**39,772**	**279,547**	**368,376**
District Lakes (excluding Lac Seul)	walleye	94,065	48,009	340,058	215,873	698,005	1,803,429
	n. pike	23,516	24,747	175,291	74,425	297,979	1,326,312
	whitefish	105,823			385,548	491,371	1,363,102
	lake trout	22,932	1,659	11,746		36,337	75,354
	sm. bass		3,317	23,495		26,812	178,452
	perch						699,862
	sturgeon*	11,758			12,000	23,758	N/A
	muskellunge			N/A		N/A	19,775
	TOTAL	**258,094**	**77,732**	**550,590**	**687,846**	**1,574,262**	**5,466,286**
All District Lakes	walleye	106,186	68,154	454,214	215,873	844,427	1,923,928
	n. pike	26,545	36,117	239,721	74,425	376,808	1,435,951
	whitefish	119,459			425,320	544,779	1,467,973
	lake trout	22,932	1,659	11,746		36,337	753,454
	sm. bass		3,406	23,998		27,404	202,286
	perch		37	258		295	709,395
	muskellunge						29,308
	sturgeon*	11,758			12,000	23,758	N/A
	muskellunge			N/A		N/A	29,308
	TOTAL	**268,882**	**109,373**	**729,937**	**727,618**	**1,853,808**	**5,834,662**

* Sturgeon are a late maturing, slow growing fish and there is no accepted method of determining productivity at this time.

SIOUX LOOKOUT DISTRICT



N
Miles
Kilometres
BIG TROUT LAKE
NORTH CARIBOU LAKE
SANDY LAKE
Windigo Lake
Upper Windigo Lake
Big Trout Lake Indian Reserve 84
Wunnummin Lake
Pickle Lake
Central Patricia
Osnaburgh Indian Reserve
Savant Lake
Allan Water
Cat Lake Indian Reserve 63C
Weagamow Indian Reserve 87
Muskrat Dam Lake Indian Reserve
Sachigo Indian Reserve 3
Sachigo Lake
McDowell Lake
Casummit Lake
Slate Falls Indian Settlement
Frog Lake Indian Settlement
SIOUX LOOKOUT

Fig. 2

MAINBASE LODGES, OUTPOSTS AND, COTTAGES

LEGEND

Mainbase Lodge	■
Outpost Camps	▲
Cottage (may represent one or more cottage)	●

2.3.2 Commercial Bait Fishing

At the present time the use of live bait is prohibited north of the 11th baseline. Therefore, all bait fish harvesting activity takes place south of this line.

Bait fish are managed on the block licence system. In this system, the portion of the district south of the 11th baseline has been divided into blocks that are 260 sq. km in area. Bait fishermen are assigned one or more blocks where they have the privilege to harvest bait fish for commercial purposes under the authority of a licence.

There are 165 bait fish harvest blocks in the Sioux Lookout District. In 1985, 140 blocks were licenced to 25 fishermen.

There were also 39 licences issued to individuals who deal in the sale of bait. There are not expected to be any major increases in the number of licences issued for the harvest of bait fish.

From 1978 to 1985 the estimated harvest of bait fish was 189,100 dozen per year. Based on a 25% increase in non-resident anglers by the year 2000, the harvest of bait fish is projected to increase to 230,000 dozen. Considering the present harvest and the availability of bait fish lakes, the waters currently licenced are capable of meeting the projected demand.

The annual average revenue from the bait fish industry is estimated to be $397,110.

2.3.3 Commercial Fishing (Food)

Commercial fishing takes place throughout the district but the majority of activity occurs in the northern portion of the district (Fig. 3).

In 1984, 78 commercial fishing licences were issued within the district. Fifteen of these licences were issued to non-Indians and the balance to Indians. The number of active licences varies between 45-65 annually. During the past few years the total number of licences has decreased due to the purchase of some commercial licences on Lac Seul, Lake St. Joseph, McCrea, Greenbush and Minnitaki Lakes.

Quotas for the commercial licences include 215,873 kg of yellow pickerel, 74,424 kg of northern pike, 425,320 kg of whitefish and 12,000 kg of sturgeon. Over the past three years the average landed catch has been: 66,895 kg of yellow pickerel 17 921 kg of northern pike 182,782 kg of whitefish, 4,276 kg of sturgeon and 5,131 kg of tullibee. The average landed value (including Freight Equalization Assistance payments) for all commercially harvested fish over the past three years was $323,833.

Harvest levels vary from one lake to another and one year to the next and depend on such things as other sources of employment and market prices of the fish. Projected harvests to the year 2000 are not expected to increase significantly.

2.3.4 Subsistence Fishing

Subsistence fishing occurs on all lakes around Indian communities. While some fishing occurs on Lac Seul, Lake St. Joseph, Cat Lake and Bamaji Lake, most subsistence fishing takes place in the northern portion of the district.

The current annual consumption level of fish for Indian subsistence is estimated to be 18 kg/person/yr for the Lac Seul Band; 35 kg/person/yr for the Cat Lake, Osnaburgh, New Slate Falls and Saugeen Nation Bands; and 40 kg/person/yr for all other communities. Walleye account for approximately 40% of the harvest except for Big Trout Lake where lake trout comprise 60% of the harvest and walleye 15% (personal communication with North Caribou Lake Band, Bearskin Lake Band and Kasabonika Lake Band and MNR data).

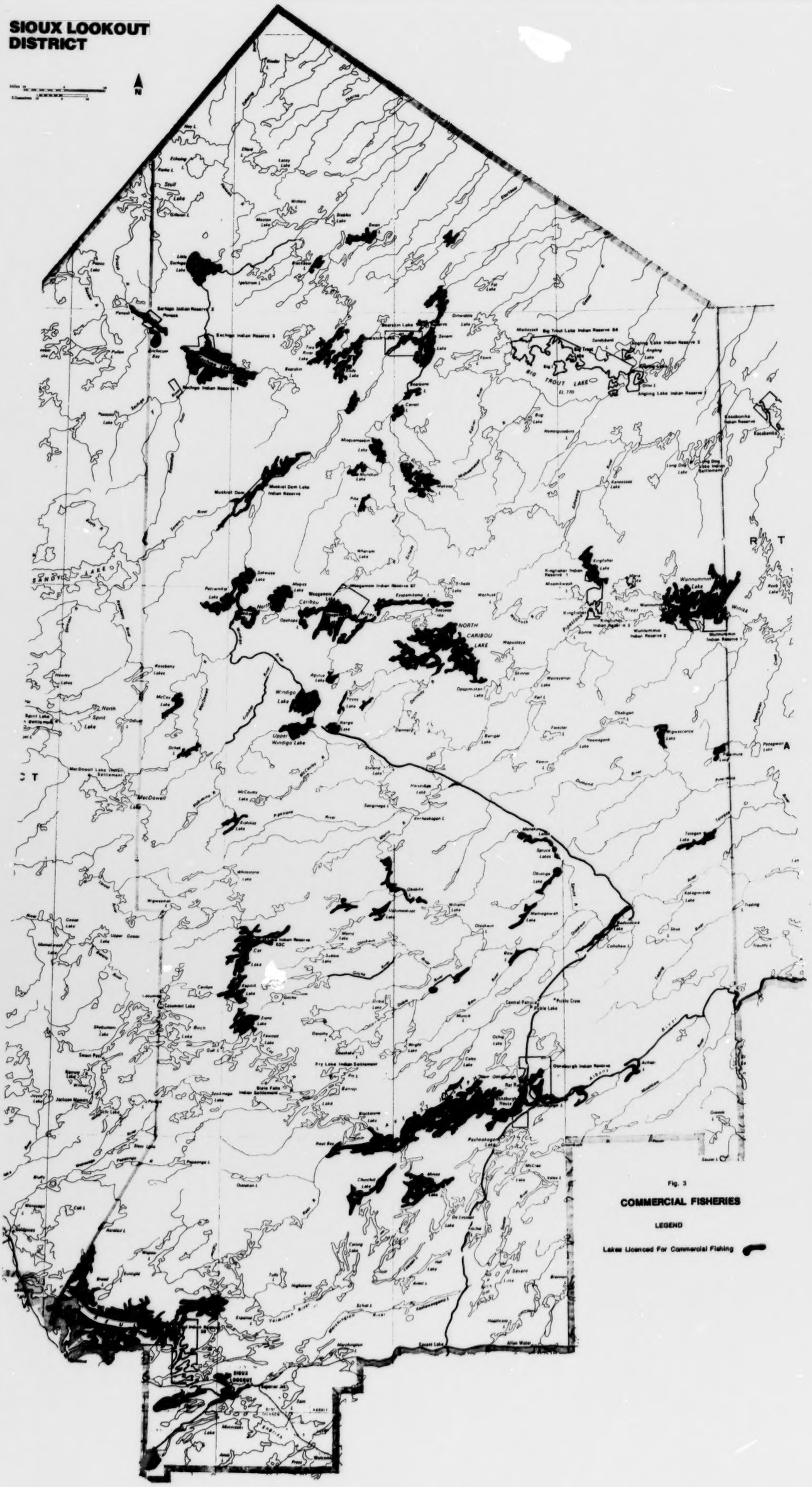
The projected subsistence harvest to the year 2000 is 185,985 kg/yr, based on an Indian population increase of 56%. (Dept. of Indian Affairs and Northern Development).

2.4 NON-FISHERIES DATA

Fish production and fisheries management have been influenced by land use practices not directly related to the fisheries.

For example, much of the southern portion of the District has been or will be accessed by a network of roads built primarily for timber management. Some roads have also been built for mineral extraction. Roads designed for access to timber or mineral deposits often provide anglers with direct access to lakes that were previously remote.

Water levels on Lac Seul and Lake St. Joseph are controlled by Ontario Hydro. The regulation of water levels for power generation purposes has a significant effect on other users of the lake, and fluctuating water levels are known to be a concern to these users. Water fluctuations also have an effect on fish populations, especially spawning areas. However, water levels on Lac Seul and Lake St. Joseph are not under MNR's control. They are regulated by the Lake of the Woods Control Board, an agency which operates independently.


SIOUX LOOKOUT
DISTRICT
N
BIG TROUT LAKE
NORTH CARIBOU LAKE
Upper Windigo Lake
MacDowell
Pickle Lake
Fig. 3
COMMERCIAL FISHERIES
LEGEND
Lakes Licenced For Commercial Fishing

2.5 OVERVIEW

The basic problems and issues can be summarized under four categories:

i) Provision of Quality Sport Fishing Opportunities

There are a number of high quality angling opportunities (e.g. large fish, high catch success) available within the district. An intent of this plan is to identify these opportunities and make some available to local anglers and others available to the tourism industry. There are, however, some problems associated with providing these opportunities.

One problem is a lack of pre-planning information for many of the lakes which appear to have a potential for tourism development or public recreation. Without basic aquatic habitat inventory data, there is a possibility of overharvesting the resource. Therefore, pre-planning data must be gathered before sport fishing opportunities for a particular lake can be made available.

A second problem relates to lakes in the district less than 100 hectares (250 acres) in area. Due to their small size, these lakes can be overharvested quite quickly when easy access to them is provided. To ensure that a high quality sport fishery is maintained on these lakes, special management techniques such as a "catch and release fishery" must be applied on a case-by-case basis.

There are also some lakes in the vicinity of the Town of Sioux Lookout where walleye and lake trout are being overharvested. These overharvest situations can be attributed to a high concentration of anglers and the ease of accessing these lakes. Therefore, another challenge is to find ways to maintain the number of angling opportunities in this area while reducing the harvest to a level within the allowable yield.

The stocking of fish may be considered when a fish community is not able to recover on its own, even when problems affecting the sport fishery such as over-exploitation or habitat degradation are removed. In this situation an injection of additional fish may be necessary. However, there are important implications to be considered with respect to stocking. It can be detrimental to native fish stocks either directly by competition or predation, or indirectly through the introduction of disease organisms. Stocking, especially hatchery raised fish, is also a very expensive management tool and the rationale and justification for stocking must be carefully considered.

The stocking of adult fish may be considered in a lake where a specific species of fish does not exist, in order to provide an alternative fishing opportunity. At the present time the district is stocking yearling brook trout in five lakes on a put-grow-and-take basis. District staff intend to review this program to evaluate its overall effectiveness.

The district is also involved in a Community Fisheries Involvement Program (C.F.I.P.) to transfer adult muskellunge from sanctuary lakes to Pelican Lake. To date, 300 muskie have been transferred. The program target is to transfer a total of 500 fish.

ii) Conflicts Among Users of the Fisheries Resource

Conflicts generally arise among five user groups: resident anglers, non-resident anglers, tourist outfitters, commercial and subsistence fishermen in competing for the top predator fish species.

Conflicts may also exist within a particular user group such as resident or non-resident anglers or outpost camp operators and main base lodge operators using boat caches on the same body of water. The introduction of the Crown Land Camping Program in the spring of 1984, has reduced the number of conflicts between resident and non-resident anglers, and tourist outfitters and non-resident anglers.

Recently, the conflict over use of the fisheries resource by Indian people (Treaty 3 and Treaty 9 in Sioux Lookout District) and all other user groups has intensified. This is due to the negotiations currently taking place between Treaty Organizations, the Provincial Government and the Federal Government.

This plan recognizes many of the basic issues including subsistence requirements and commercial utilization of the fish resources by the Indian communities. Plan amendment will occur if and when an Indian Fishing Agreement requires changes in the management plan.

iii) Environmental Quality

Environmental quality can be reduced by a number of different activities — timber harvesting, mineral exploration and extraction and road construction. But even boathouse construction, docks, dredging and near-shore landscaping can create serious habitat losses. In the Sioux Lookout District, critical fisheries habitat has been protected through the co-ordinated review of the resource management activities proposed by the various branches of the MNR and other outside agencies.

From time to time it may be necessary to deal with irresponsible parties who have destroyed habitat and threatened the local fishery. In some situations, legislation can be used to assist in the rehabilitation of damaged habitat.

iv) Public Involvement and Fisheries Management Information

From public responses received and ongoing discussions with all user groups, there appears to be widespread need and support for implementing and expanding public education programs. This includes the need for fisheries managers to do a better job of explaining the merits of special management techniques designed to reduce the kill of fish (eg. slot-size limits, catch and release fisheries and trophy fisheries) and highlighting the physical and biological constraints of the water systems and fish populations which they deal with.

Fisheries managers also require further involvement from the public in an active management role. This could include providing additional information on fish harvests or spawning locations, assisting in experimental management programs and in suggesting specific management actions. Tourist operators can become involved by volunteering to try out management techniques on lakes where they operate.

The need for open lines of communication between all people interested in fisheries resources will become more important as regulations governing fisheries become more complex and user group demand for limited resources increases.

3.0 FISHERIES MANAGEMENT DIRECTION

3.1 GENERAL FISHERIES MANAGEMENT OBJECTIVE

The general objective for fisheries management in northwestern Ontario is *"to protect, rehabilitate, enhance and maintain fish communities and their environment to provide an optimum contribution of fish, fishing opportunities and associated benefits to society."*

These benefits include opportunities for: tourism development, recreational angling for local residents and subsistence harvesting by Indians.

This objective summarizes the general direction of fisheries management in the Sioux Lookout District. From this overall direction, general fisheries management principles may be summarized as follows:

- To use available knowledge to the fullest to manage fisheries more effectively and reduce conflicting uses of the environment.
- To maintain and, where necessary, rehabilitate aquatic environments.
- To prevent overfishing by monitoring fish communities for signs of stress and adjusting permitted harvests accordingly.
- To allocate fish resources where there are competing users to provide the optimum mix of benefits and to maintain healthy, balanced fish populations.
- To develop an expanded knowledge base through the collection and analysis of resource inventory data, and by monitoring the impact of experimental management programs.
- To develop public awareness of fisheries, their values, stresses and management techniques through seminars, brochures and consultation with users.
- To develop increased public participation in maintaining quality fisheries by providing technical advise to users and encouraging users to be involved in volunteer initiatives or co-operative and innovative management techniques.
- To enforce fisheries regulations consistently, equitably and effectively.

To achieve this objective requires the use of three general strategies:

i) to enhance public education;

ii) to utilize the concept of Fisheries Management Zones;

iii) to develop specific management objectives.

3.2 PUBLIC EDUCATION

It is important that anglers and other users of the resource become more involved in the process and assume some responsibility for managing the resource. Without co-operation from the users of the resource it is difficult to ensure that the existing quality of the resource will be maintained.

3.2.1 Tactics for Public Education

a) more extension services to provide technical expertise and advice to users who wish to develop special management actions for ensuring fishing quality (i.e. promoting trophy fisheries and more catch and release).

b) provide the general public with more information regarding the management of the fisheries resources they use through seminars, brochures and workshops.

c) increase public consultation and participation in the development of fisheries management actions.

d) increase public participation in the direct management of fisheries through government sponsored programs (CFIP) and other volunteer initiatives.

e) more cooperative education courses which emphasize fisheries management principles and techniques.

3.3 FISHERIES MANAGEMENT ZONES

Due to the large size of the district, the difference in the degree of accessibility, the distribution of angling pressure and the potential of specific areas to provide additional angling opportunities, the district has been divided into management zones. Wherever possible, boundary lines were established along recognizable physical features such as roads, railways and shorelines (See Fig. 4).

Initially, the district intends to use these zones as the basis for collecting information related to species harvests, angling pressure and angler origin. The zones will also form the basis for providing additional angling opportunities. As more detailed information becomes available and fisheries problems and issues become more clearly defined, it may be worthwhile to adopt specific regulations for a problem in a particular zone. It is therefore possible that a single

zone or several zones could be established as a separate fishing division as has been done on Lac Seul (Division 30).

Management intents have been established for each zone. These intents recognize existing use patterns and the resource potential of an area. They are an attempt to make the best use of that area so that social and economic benefits are optimized. Management intents also assist fisheries managers in determining where specific strategies should be implemented and in measuring the effectiveness of the management actions taken. Where neighbouring MNR administrative districts have similar management intents, zones will overlap district boundaries.

3.3.1 Zone Descriptions

Zone 27 — English River

Description — This zone contains the communities of Sioux Lookout and Hudson, 15 main base lodges, six outpost camps and numerous private residences, summer cottages and commercial boat caches.

Timber harvesting activity is occurring throughout this zone.

Commercial fishing for whitefish is taking place on four lakes. Four lake trout lakes and several walleye fisheries are being harvested above the allowable yield.

Management Intent

- Maintain the quality of the lake trout, walleye and brook trout fishery;
- Provide road accessible angling opportunities;
- Maintain the existing tourism facilities catering to anglers; and
- Provide additional opportunities for cottage development on Crown land.

No new opportunities for fisheries-related tourism development on Crown land will be provided. Proposals to expand existing operations by introducing fisheries management techniques designed to reduce the kill of fish, e.g. catch and release, will be considered on a case-by-case basis.

Road accessible angling opportunities will continue to exist. However, conventional vehicular access to every lake that is currently road accessible cannot be guaranteed. Many existing roads were built to access stands of timber. Once harvesting operations cease, the quality of these roads may gradually deteriorate to a point where they are no longer passable by conventional vehicles.

District staff are currently assessing the capability of Pepperbell Lake to provide cottage lots in the vicinity of Sioux Lookout. Other lakes under consideration for evaluation for cottage lot potential include Smock, Eclipse and Wyatt Lakes. Staff will also be considering Minnitaki, Abram, Pelican and Botsford Lakes as possible locations for cottage lots once better fisheries information is obtained. These lake planning exercises will be subject to full public involvement.

Zone 20 — Lac Seul

Lac Seul is the largest sport fishery in the district. There are 18 main base lodges, 11 outpost camps, 27 remote cottages, nine private campsites and the Lac Seul Indian Reserve on the lake. Fourteen houseboats authorized to provide overnight accommodation to non-residents and 3 houseboats which cater to residents of Canada also operate on the lake. In addition, there are approximately 35 main base lodges located on other lakes in the vicinity of Ear Falls and Sioux Lookout that use Lac Seul intensively. Recent data has indicated that walleye are being overharvested on Lac Seul.

Management Intent

- Protect the remote recreational character of the lake;
- Maintain the high quality sport fishery on the lake;
- Crown land cottaging will be maintained at existing levels; and
- Disposition of Crown land for development purposes which could increase the harvest of the sport fishery will be restricted.

The importance of Lac Seul to local residents, the tourism industry and the Lac Seul Indian Band has been recognized. A management plan for Lac Seul has already been approved. Details regarding this plan are outlined in Section 4 of this plan.

Zone 28 — Savant River

Description — This zone contains the community of Savant Lake, the Saugeen Nation Indian settlement and part of the Osnaburgh Indian Reserve. Five main base lodges, 16 outpost camps and a number of commercial boat caches are located here. There are three Class III access points (overnight camping permitted) which receive a moderate amount of use by non-residents. Timber harvesting activity is taking place in the extreme western portion of this zone. Timber harvesting has occurred in the area around Lake Savant in the recent past and may start up again in the future.

Management Intent

- Maintain the quality of the sport fish, lake trout and brook trout fisheries;
- Provide road accessible angling opportunities;
- Maintain remote characteristics of lakes with tourism development;
- Provide new remote tourism development opportunities; and
- Provide additional opportunities for cottage development on Crown land.

Attempts will be made to maintain the remote character of lakes with tourism facilities by locating roads away from these lakes whenever possible. In some situations it may be necessary to use other means to maintain the remote quality of these lakes, e.g. restrict Crown land camping by non-residents, do not permit new resident boat caches, restrict vehicular traffic on some roads.

There is also potential to provide remote angling opportunities in this zone. The development of tourism opportunities will focus on proposals which provide the greatest economic return and promote fisheries techniques which reduce the kill of fish e.g. catch and release fishery.

During the first few years of the plan, efforts will be concentrated on larger lakes where opportunities for major development are thought to exist. Therefore, at this time little or no effort will be directed towards evaluating the potential of small lakes to support boat caches or other forms of development.

Road accessible angling opportunities will continue to exist. However, conventional vehicular access to every lake that is currently road accessible cannot be guaranteed. Many existing roads were built to access stands of timber. Once timber harvesting operations cease, the quality of these roads may gradually deteriorate to a point where they are no longer passable by conventional vehicles.

District staff are currently preparing a lake management plan for Kimmewin Lake, to provide Crown land cottage lots in the vicinity of Sioux Lookout. A lake management plan has been prepared for Minchin Lake. If there is sufficient demand for cottaging in this area, cottage lots will be developed on Minchin Lake.

Zone 29 — Root River

Description — A high level of timber harvesting activity is occurring in the Sioux Lookout portion of this zone and timber operations are expected to remain very active in this area in the future. New access road construction is also planned for this area. One Indian settlement, 28 outpost camps, one main base lodge and numerous commercial boat caches are located here. There are four lakes with cottage development on them.

Management Intent

- Maintain the quality of the sport fishery;
- Provide additional angling opportunities for resident anglers;
- Maintain the present tourism facilities catering to anglers; and
- Crown land cottaging will be maintained at existing levels.

Additional angling opportunities for resident anglers will be provided. Management efforts will focus on smaller lakes with high quality angling opportunities that are located in the vicinity of proposed access roads.

No new opportunities for fisheries related tourism development on Crown land will be provided. Proposals to expand existing operations by introducing fisheries techniques designed to reduce the kill of fish, e.g. catch and release fishery, will be considered on a case-by-case basis.

Attempts will be made to maintain the remote character of lakes with tourism facilities by locating roads away from these lakes whenever possible. In some situations it may be necessary to use other means to maintain the remote quality of these lakes, e.g. restricted Crown land camping by non-residents, not allowing new resident boat caches and restriction of vehicular traffic on some roads.

Zone 30 — Cat River

Description — The community of Pickle Lake, the Cat Lake Indian Reserve and a portion of the Osnaburgh Indian Reserve are located in this zone. One major access road (Highway 599) passes through this area. There are 36 outpost camps, one main base lodge, some commercial boat caches and two Class III access points (overnight camping permitted). Two lakes have cottage development on them. Nineteen lakes are licenced for commercial fishing. Species under licence include walleye, northern pike, whitefish and sturgeon.

Management Intent

- Maintain the existing quality of the sport fish, lake trout and brook trout fisheries;
- Provide additional angling opportunities for resident anglers;
- Maintain remote characteristics of lakes with tourism development;
- Provide new remote tourism development opportunities; and

- Crown land cottaging will be maintained at existing levels.

District staff are currently studying the feasibility of developing a public access point on the east end of Lake St. Joseph, to provide resident anglers with additional sport fishing opportunities.

The development of tourism opportunities in this zone will focus on proposals which provide the greatest economic return and promote fisheries techniques which reduce the kill of fish e.g. catch and release fishery. During the first few years of the plan efforts will be concentrated on larger lakes where opportunities for major development are thought to exist. Therefore, little or no effort will be directed towards evaluating the potential of small lakes to support boat caches or other forms of development.

The development of tourism opportunities may also occur through the conversion of commercial fish quotas for walleye, northern pike and sturgeon to sport fishing opportunities.

No additional opportunities for Crown land cottaging will be developed at this time. Cottage lot development on Minchin Lake (in zone 28) will be made available if there is sufficient demand.

Zone 31 — Pipestone River

Description — There is one major access road into this area. There are six outpost camps, one main base lodge and five Class III access points. Fifteen lakes and two rivers are licenced for commercial fishing. Species under quota include walleye, northern pike, whitefish and sturgeon.

Management Intent

- Maintain the existing quality of the sport fisheries;
- Manage for Crown land recreation opportunities;
- Provide the opportunity for additional tourism development; and
- Crown land cottage opportunities will not be provided.

This zone is one area in the district where there is a potential to provide additional opportunities for Crown land camping by non-residents. The five access points which provide areas for overnight camping are not being fully utilized at the present time.

The development of tourism opportunities may occur through the conversion of commercial fish quotas for walleye, northern pike and sturgeon to sport fishing opportunities. Proposals to expand existing operations by introducing fisheries management techniques designed to reduce the kill of fish, e.g. catch and release, will be considered on a case-by-case basis.

Zone 32 — Severn River

Description — This is the most remote area of the district. There is no all weather road access into this zone. Nine Indian reserves are situated here. There are 10 outpost camps and two remote cottages in this area. Thirty-five lakes and five rivers are licenced for commercial fishing. Walleye, northern pike, whitefish and sturgeon are the species under quota.

Management Intent

- Maintain the quality of the sport fish and lake trout fisheries;
- Provide the opportunity for additional tourism development; and
- Crown land cottaging will be maintained at the existing level.

There are some lakes with potential for tourism development in this area. However, pre-planning data for these lakes must be gathered before they can be made available for tourism development. The greatest opportunity for tourism development lies in the conversion of commercial fish quotas of walleye, northern pike and sturgeon to sport fishing opportunities.

Proposals to expand existing operations by introducing management techniques designed to reduce the kill of sport fish e.g. trophy fishery, will be dealt with on a case-by-case basis.

Zone 37 — Trout Lake

Description — The majority of this management zone lies within Red Lake District. The Sioux Lookout District portion of this zone contains three lake trout lakes and 12 outpost camp lakes. There are no lakes licenced for commercial fishing and no opportunities for new tourism development within the Sioux Lookout District portion of this zone.

Management Intent

- Maintain the quality of the sport fish and lake trout fisheries; and
- Maintain the present number of tourism facilities catering to anglers.

No new opportunities for tourism development will be made available in the Sioux Lookout portion of this zone. Proposals to expand existing operations by introducing fisheries management techniques designed to reduce the kill of sport fish , will be considered on a case-by-case basis.

Attempts will be made to maintain the remote character of lakes with tourism facilities by locating roads away from these lakes whenever possible.

On occasion it may be necessary to use other means to maintain the remote quality of these lakes, e.g. restricted Crown land camping by non-residents, not allowing new resident boat caches and restriction of vehicular traffic on some roads.

3.4 SPECIFIC FISHERIES MANAGEMENT OBJECTIVES AND TARGETS

Specific fisheries management objectives and targets have been developed for sport fish, lake trout, muskellunge, commercial fish (food) and bait fish. The objectives identify the end result to be obtained. The targets assist fisheries managers to determine the degree to which specific tactics have been implemented.

3.4.1 Sport Fish

Management Objective

To provide for optimum social and economic benefits derived through sport fish while maintaining self-sustaining populations.

For the purposes of this plan "sport fish" includes: walleye, northern pike, smallmouth bass and yellow perch. Although lake trout and muskellunge are sport fish, because of their unique nature, they are dealt with separately in subsequent subsections of the plan.

Sport Fish Target

- To meet the projected demand of 228,920 angler days;
- To reduce the harvest to a level within the allowable yield on lakes that are currently over-exploited; and
- To manage specifically for trophy (large) fish in selected waters.

The allowable yield for walleye and northern pike is 3,359,879 kg/yr; The projected demand for sport fish, to the year 2000, is estimated to be 974,500 kg/yr (includes subsistence harvest of sport fish and commercial fish quotas for walleye and northern pike). However, management actions in the southern districts in this Region where there is an overharvest of sport fish may cause a shift of anglers northward into Sioux Lookout (and Red Lake), causing the actual number of angler days to exceed the projected demand.

District staff intend to satisfy the demand for additional tourism development opportunities by focusing information gathering efforts on lakes having the potential to provide the greatest number of angling opportunities. Projected increases in non-resident anglers will be channelled through the tourism industry to maximize the economic return on the use of the fisheries resource. Little or no effort will be directed towards evaluating the potential of small lakes to support boat caches or other forms of development. Additional angling opportunities will also be provided to local residents. Management efforts for these opportunities will focus on smaller lakes located in the vicinity of proposed access roads.

Some lakes in the more accessible parts of the district are receiving heavy angler pressure. Fisheries managers will ensure the sport fish harvest on these lakes does not exceed the allowable yield.

3.4.2 Lake Trout

Management Objective

To maximize high quality recreational angling opportunities and allow for subsistence harvest opportunities while maintaining self-sustaining populations.

Lake trout are extremely vulnerable to over-exploitation due to their slow growth, low reproduction rate and the low productivity of the waters they inhabit. Therefore, harvest levels must be set below the allowable yield to ensure that natural reproduction of the species occurs.

Lake Trout Target

- To maintain the harvest below the allowable yield on lakes that have additional angling opportunities for lake trout;
- To reduce the harvest to a level below the allowable yield on lakes that are currently over-exploited;
- To manage specifically for trophy (large) fish in selected waters.

The allowable yield for lake trout is 75,354 kg/yr. Projected harvest to the year 2000 is 36,314 kg/yr (includes a subsistence harvest of 23,000 kg/yr).

On a District-wide basis there are additional angling opportunities for lake trout. However, there are four lakes in the southern part of the district where the harvest is exceeding the allowable yield. Since lake trout are extremely sensitive to over-exploitation, steps must be taken to reduce the harvest on these lakes to a level below the allowable yield as soon as possible.

The plan does recognize the potential of some lakes to provide additional angling opportunities; in keeping with the objective to keep harvest levels within the allowable yield and to provide high quality angling

opportunities, the emphasis will be on developing trophy fisheries on these lakes.

3.4.3 Muskellunge

Management Objective

To optimize high quality recreational angling opportunities while maintaining naturally reproducing populations.

Muskellunge, like lake trout, are extremely vulnerable to exploitation because of their low abundance and low rate of reproduction. Muskie also have the potential to grow to a very large size. Therefore, they attract anglers who are willing to put in many long hours of effort in order to be rewarded with a prize catch. Harvest levels must therefore be set below the allowable yield to ensure that naturally reproducing populations are maintained.

Muskellunge Target

- To maintain the harvest below the allowable yield.
- To manage for trophy (large) fish.

At the present time the district does not have accurate information on either the allowable yield or the annual harvest for muskellunge. Therefore management efforts for muskellunge will focus on gathering information on the District's muskie population. As this information becomes available, fisheries managers will calculate specific harvest targets required to maintain the harvest level below the allowable yield.

3.4.4 Commercial Fish

Management Objective

- To maintain a viable industry by encouraging the harvest of commercial fish under the quota management system, where it is biologically economically and socially acceptable.

The management objective is aimed at encouraging the harvest of commercial fish where it is economically and biologically feasible, socially acceptable and where it has been an established tradition. In instances where there are competing uses or high economic costs, converting the commercial sport quota to sport fishing opportunities for tourism development may be a more economical way of managing the resource.

Commercial Fish Target

- To encourage the harvest of whitefish up to the level of the existing quotas (425,320 kg).
- To reduce the commercial fish quotas for walleye and northern pike to a harvest level established by MNR and the licence holder.
- To convert commercial quotas of sport fish to tourism opportunities.

Over the last three years the landed catch for all licence holders has been 34% of the established quota. Harvest levels have also varied from year to year and lake to lake, depending on such things as other employment opportunities, and market prices.

Recently many Indian Bands holding commercial fishing licences have expressed an interest in converting part or all of their commercial fish quotas for walleye, northern pike and sturgeon to sport fishing opportunities.

Proposals for conversion of commercial fish quotas of sport fish will be reviewed on a case-by-case basis. Where conversions are approved, modifications to the commercial fish target will be made.

Fisheries managers will also be discussing concerns and problems with commercial fishermen to ensure that established quotas are realistic.

3.4.5 Bait Fish

Management Objective

- To provide for the harvest of bait fish for use by the sport fishery recognizing the overall social and economic benefits generated through the maintenance of a viable bait fish industry.

At the present time a provincial regulation does not permit the possession of live bait fish above the 11th baseline (a line slightly north of Cat lake which passes through Williams Lake). However, in comparing the present level of harvest of bait fish to the availability of bait fish, it appears that the waters currently licenced are capable of meeting the projected demand. Therefore, the district will continue to manage bait fish, south of the 11th baseline, using the block licencing system.

Bait Fish Target

- To provide 230,000 dozen bait fish by the year 2000.

This target represents the demand by the recreational sport fishery based on the projected increases in angler numbers. It is based on a relationship of 1 dozen bait fish per angler day.

3.5 STRATEGIES AND TACTICS

Four general categories of problems and issues were previously identified in Section 2.5. Within these

general categories specific problems and issues have been identified which must be overcome before the target associated with that problem or issue can be achieved.

Strategies and tactics designed to address a particular problem have been identified. They must be constantly monitored to determine their effectiveness in solving that problem and their influence on the achievement of the targets.

The strategies and tactics also summarized in the Implementation Schedule (Table 3).

3.5.1 Provision of Quality Sport Fishing Opportunities

Problem/Issue 1

There is a need to gather additional fisheries data on lakes which appear to have the potential for tourism development or public recreation. This information must be gathered prior to making these lakes available to ensure that a high quality angling experience is maintained.

Strategy

Gather additional information on lakes which have the potential to provide additional angling opportunities for tourism development or public recreation.

Tactics

- Collect information on the pattern of existing use and resource potential for lakes within the Savant River (28) Cat River (30) zones.
- Work with Ministry of Tourism and Recreation and the tourism industry to develop a system for disposing of tourism opportunities based on best economic return.
- Study the feasibility of developing a public access point on the east end of Lake St. Joseph in zone 30.
- Review access road proposals to identify lakes with angling opportunities for local residents.

Discussion

While all zones have many lakes with an inadequate fisheries data base, information gathering efforts will focus on lakes in the Savant River (28) and Cat River (30) zones because there are lakes in these areas which appear to have potential to support medium to large scale tourism facilities.

The number of lakes with tourism development potential is limited. It is therefore important to establish criteria which will identify tourism development that will provide the greatest economic return.

Some demand has been expressed by residents of Pickle Lake for a public access point on the cast end of Lake St. Joseph. The MNR will undertake a study to determine what effect an access point would have on Lake St. Joseph. Related to this is the need to evaluate the effects of designating this lake as a Restricted Crown Land Camping Area for non-residents of Canada.

It is also important to review access road proposals during the timber management planning process, so that the proposed road system may be used to create additional angling opportunities for local residents.

Problem/Issue 2

Some Indian Bands holding commercial fishing licences for lakes in the Severn River (32), Pipestone River (31) and Cat River (30) zones have expressed a desire to convert their commercial fish quotas for walleye, northern pike and sturgeon to sport fishing opportunities.

Strategy

Increase the economic and social value of the fisheries resource allocated to the commercial fishing industry.

Tactics

- Promote the utilization of the existing commercial fish quotas for walleye and northern pike through the conversion of these quotas to sport fishing opportunities. Quota reductions will occur on a lake specific basis.
- Investigate the feasibility of converting commercial quotas for sturgeon into sport fishing opportunities.

Discussion

The conversion of walleye and northern pike quotas to tourism opportunities would result in a more economical utilization of the district's fisheries resource. It would also permit the Indian Bands to develop a stronger and broader economic base.

Some bands have expressed a desire for a total conversion of sport fish quotas to tourism opportunities, while others want only a partial conversion. On lakes where a partial conversion of quotas takes place, commercial fishing activity will have to be restricted to the fall and winter to eliminate the perception of a conflict between anglers and commercial fishermen. MNR will deal with specific requests when they are received.

It will also be necessary to look at each lake specifically, to determine if management techniques, such as a trophy fishery, are practical and the best use of the resource.

Problem/Issue 3

Too many "trophy size" walleye and northern pike are being taken within the existing possession limits. A related concern is that many of the trophy sized fish being taken are prime breeding stock. These concerns apply to all zones in the the district.

Strategy

Reduce the number of "trophy size" walleye and northern pike that are harvested by individual anglers to spreadout trophy opportunities.

Tactics

- Establish a trophy limit where only one northern pike within the daily and possession limit may be greater than 70 cm (27.5 in) for all management zones.
- Establish a trophy limit where only one walleye within the daily and possession limit may be greater than 50 cm (19.5 in) for all management zones.

Discussion

Limiting the number of large sized fish that an angler is permitted to possess will not only ensure that all anglers will have a greater opportunity to catch a trophy , but it will also reduce the number of prime breeding fish that are harvested.

This trophy limit for walleye and northern pike is being proposed in all other districts in the Northwestern Region. If a decision is made to test out a slot-size limit for walleye on Lac Seul (Zone 20), then the trophy limit for walleye would **not** apply to this management zone.

Problem/Issue 4

Tourist lodge operators on Savant Lake in zone 28 believe that walleye and northern pike are being overharvested on that lake.

Strategy

Reduce the harvest of walleye and northern pike on Savant Lake to the allowable yield.

Tactics

- Reduce the daily and possession limit for walleye and pike to four fish of each species, through the imposition of "camp rules."
- Introduce restrictions on fishing tackle by encouraging the use of single barbless hooks.
- Work with tourist camp operators to obtain creel data and biological information for Savant Lake.

Discussion

The lodge operators on Savant Lake recently expressed an interest in co-operating with MNR to "test out" various management techniques. Since there is a spirit of co-operation between the lodge operators on the lake and since the majority of anglers using the lake are guests of the tourist outfitters, an ideal situation exists for testing out different management techniques on a voluntary basis.

A single barbless hook is a hook with one eye but with one, two or three hooks. A treble hook would still be considered a single hook. Barbs would either be removed or not present on the hook. This type of "self management" is one of the ways in which MNR wishes to direct its fisheries management efforts.

Problem/Issue 5

Tourist outfitters are concerned that there may be an overharvest of walleye, due to boat caches on Twain, Tuktegewik and Wapesi Lakes in the Root River Zone (29) and Jorick Lake in the English River Zone (27).

Strategy

Determine if there is an overharvest of walleye due to boat caches on lakes that have been identified as "problem lakes" by the tourism industry.

Tactics

- Use existing data to determine the allowable yield and estimate current harvest of walleye and northern pike.
- Where the overharvest situation can be attributed to commercial boat caches, seek solutions in concert with all operators on the lake, e.g.:
  - Control the length of the operating season for boat cache operators;
  - If no concensus on how to deal with a particular situation is reached, take steps to remove some or all of the commercial boat caches.
- Where the problem cannot be attributed to commercial boat caches, work with all

interested parties to develop a mechanism to reduce harvest to the allowable yield.

Discussion

Concerns about overharvest have been identified by the tourist outfitters themselves. The first task is to determine if there is, in fact, an overharvest on these lakes.

The procedure to deal with legitimate problems is one that was developed by a committee whose membership included representatives from the tourism industry, the Ministry of Tourism and Recreation, the Ministry of Natural Resources and representatives from the resident angling public. The onus is on the tourist outfitters to develop a solution that is acceptable to all parties.

Problem/Issue 6

There is evidence that lake trout are being overharvested on Vermilion, Little Vermilion, Zarn and Forty Mile lakes in the English River Zone (27). There is also a concern that the harvest of lake trout in other zones is approaching the allowable yield.

Strategy

Ensure that future angler harvest of lake trout remains below the allowable yield.

Tactics

- Non-residents of Canada angling for lake trout, who do not own real property in Ontario, must stay at tourist establishments. (All zones.)
- Non-residents of Canada who are in the company of a resident of Ontario who may legally fish for lake trout may use that resident's limit to angle for lake trout.
- Reduce the catch and possession limit from three to two lakes trout in all management zones.

Other tactics under consideration:

- Permit the use of artificial bait only, when angling for lake trout on Little Vermilion, Vermilion, Zarn, Forty Mile and Minnitaki Lakes.
- Reduce the catch and possession limit for lake trout to one on Little Vermilion, Vermilion, Zarn, Forty Mile and Minnitaki Lakes from March 01 to the third Saturday in May.
- Close the season for lake trout from March 01 to the third Saturday in May on Vermilion, Little Vermilion, Zarn, Forty Mile and Minnitaki Lakes.

Discussion

Lake trout are slow growing and sensitive to over-exploitation. It is therefore important to ensure that the annual harvest does not exceed the allowable yield.

Reducing the catch and possession limit for lake trout from three to two will help to ensure that the harvest of lake trout remains within the allowable yield on lakes not yet overharvested.

Some local residents expressed a concern about requiring **all** non-residents of Canada angling for lake trout to be accommodated at tourist establishments. The concern was that they would no longer be able to fish for lake trout with their non-resident friends. As a result of this input, it was decided to allow non-residents of Canada to fish for lake trout, while in the company of a resident of Ontario who can legally fish for lake trout (e.g. licenced adult angler, senior citizen, resident under 18 years of age). Any lake trout caught by a non-resident would count as part of a resident's possession limit.

Since lake trout are being overharvested on Vermilion, Little Vermilion, Zarn and Forty Mile Lakes, additional management actions must be taken to reduce this overharvest.

One action proposed by MNR was to introduce a tag system for lake trout. During the public review of the fisheries plan this proposal received mixed support and MNR has decided to defer its implementation. Other management actions under consideration include permitting the use of artificial bait only, when angling for lake trout, and a further reduction in the possession limit or a season closure during the spring when much of the overharvest occurs.

MNR will be seeking public input on the tactics specific to these Lakes, before arriving at a decision on which actions to implement.

Harvest levels for lake trout on Minnitaki Lake do not appear to have reached the allowable yield level. However, to prevent an overharvest from occurring as a result of a shift in angling pressure from the four other lake trout lakes in this area any actions selected will also apply to Minnitaki Lake.

Strategy

Provide alternative angling opportunities to reduce the angling pressure on lake trout.

Tactics

- Continue to stock brook trout on a put-grow-and-take basis.
- Provide new angling opportunities by stocking splake.

Discussion

The district is currently stocking brook trout in five lakes. Staff intend to conduct an angler survey to

determine the degree to which anglers are utilizing these opportunities.

Staff have identified one lake within the district which is suitable for stocking splake. This will provide anglers with additional angling opportunities.

Problem/Issue 7

There is a potential that too many trophy size lake trout are being taken within the existing possession limit on Echoing Lake in the Severn River Zone (32).

Strategy

Manage lake trout as a trophy fish on Echoing Lake.

Tactics

- Reduce the daily catch limit for lake trout to one fish and reduce the possession limit to two fish, where only one fish may be greater than 65 cm.
- Introduce restrictions on fishing tackle by only allowing the use of a single barbless hook.

Discussion

Echoing Lake is the only lake trout lake where the practise of taking more than one large fish in the possession limit has been expressed as a significant concern. Allowing anglers to take home only one trophy fish will ensure that the quality of the angling experience remains high.

MNR will work with the Sachigo Lake Indian Band to develop specific details of establishing a trophy fishery on Echoing Lake.

MNR staff are willing to work with operators on other lake trout lakes who are interested in establishing trophy fisheries.

Problem/Issue 8

Angler reports of poor harvest success of muskellunge on Pelican Lake in zone 27 indicate that population have declined below the self-sustaining level.

Strategy

Re-introduce muskellunge into Pelican Lake to re-establish a self-sustaining population.

Tactics

- Continue to transfer muskellunge from Muskie and Hooch Lake to Pelican Lake under the Community Fisheries Involvement Program.

Discussion

MNR is working with local tourist operators and anglers to transfer adult muskellunge from sanctuaries to Pelican Lake. It is felt that 500 adults are required to re-establish a stable population. To date 300 muskie have been transferred and the transfer program should be completed by 1989. The program will be assessed when studies are conducted on Abram, Pelican and Minnitaki Lake.

Problem/Issue 9

There is a concern that too many large size walleye are being taken within the possession limit, in the section of the Root River between Nattaway Falls and Flower Falls (zone 29). This situation is a concern during late August and September when populations of Lac Seul walleye are moving upstream from Adamhay Lake.

Strategy

Reduce the number of large walleye that an individual angler may harvest.

Tactics

- Extend the Restricted Crown Land Camping Area on the Root River from Nattaway Falls to Root Bay on Lake St. Joseph.
- Apply the slot-size limit for walleye proposed for Lac Seul to the Root River, up to the dam at Lake St. Joseph.
- Establish a year round sanctuary on the Root River, from Nattaway Falls to the dam at Lake St. Joseph.

Discussion

In 1984, a winter and spring sanctuary was established on Adamhay Lake to provide the breeding population of walleye with some protection during a period of time when it is relatively easy to catch them. The large walleye being caught in the Root River during the fall are part of this breeding population.

A creel census conducted at the Root River bridge during the fall of 1987 determined that a significant number of large walleye were being harvested during the fall. It has therefore become necessary to reduce this harvest to protect the breeding stock.

The proposed "trophy limit" for walleye discussed in Problem 3 of this section (only one walleye over 50 cm permitted within daily possession limit) will not sufficiently reduce the harvest. Establishing a slot size limit for walleye in this section of the Root River, combined with the proposed trophy limit, should provide enough protection for the breeding stock.

To protect the walleye in this area until the above measures have been implemented, a year round sanctuary will be established.

Problem/Issue 10

The Sioux Lookout District has some naturally reproducing stocks of native brook trout in the Cat River Zone (30) and the Severn River Zone (32).

In the Albany River area (zone 30), there are some signs that the species is being overharvested.

Strategy

Reduce the overharvest of brook trout to a level below the allowable yield.

Tactics

- Reduce the possession limit for brook trout, from seven fish to two on the Albany River from Achapi Lake to the Albany Forks in the Geraldton District.
- Close the season for brook trout from September 1 to December 31, on the Albany River from Achapi Lake to the Albany Forks.

Discussion

Brook trout provide some excellent angling opportunities. Since their natural habitat is limited, brook trout must be managed carefully to ensure they are not overharvested. reducing the daily possession limit and the length of the angling season on the Albany River will ensure that a quality angling experience is maintained in this area.

The need to provide brook trout in this area with further protection has been recognized for some time by staff in the Sioux Lookout and Geraldton Districts. Through an internal Ministry mechanism known as a variation order, staff have succeeded in establishing a closed season for this area and are considering a reduction in possession limits using the same mechanism. It is expected that this approval will be received in the near future.

3.5.2 Conflicts Among Users of the Fisheries Resource

Problem/Issue 1

When some access roads are constructed they provide easier access to remote lakes. Some resident anglers believe these roads should be open to the public. Tourist outfitters believe that roads which provide easy access to lakes with tourism facilities are detrimental to the remote recreational and high quality fishing experience they are marketing. This situation is an issue in the English River (27), Savant River (28), Root River (29), Cat River (30), Pipestone River (31) and Trout Lake (37) zones.

Strategy

Minimize conflict situations between tourist outfitters and anglers.

Tactics

- Encourage all potentially affected parties to participate in the road planning process.
- Continue to provide input to access road proposals by applying the *Forest Management Guidelines for the Protection of Tourism Values*.
- Evaluate the need to establish Restricted Crown Land Camping Areas on a case-by-case basis.
- Provide resident anglers with additional angling opportunities by locating proposed access roads adjacent to undeveloped lakes with sport fishing opportunities.

Discussion

During the preparation of timber management plans, access road locations are proposed. By participating in this process and processes which concern access roads for other purposes, the tourist outfitters can provide information that will help to maintain the remote recreational experience they offer.

In some cases it may be necessary to use techniques such as restricting new resident boat caches or restricting vehicular traffic on some roads to maintain the remote quality of these lakes.

There is a possibility that road access to these small lakes may be created before the special management techniques are in place; Therefore it may be necessary to establish sanctuaries on these lakes as an interim measure.

Providing resident anglers with alternative angling opportunities on undeveloped lakes would reduce the demand to access lakes with tourism facilities. Lakes which possess a high quality sport fishery but which cannot withstand heavy angling pressure could be protected by fisheries management techniques which are designed to reduce the kill of fish e.g. catch and release, tackle restrictions, a limited entry fishery.

Flash, Spearn and Anni.. Lakes have been identified as candidates.

Problem/Issue 2

There is a conflict between the tourism industry and timber companies regarding timber harvesting near shorelines of lakes. Tourist outfitters believe a treed shoreline is an important component of the

recreational package they are marketing. Timber companies often feel that attempting to harvest timber within Areas of Concern adds to their operating costs. This situation is a problem in all zones where commercial timber harvesting is occurring or proposed during the next five years: English River (27), Savant River (28), Root River (29), and Trout Lake (37).

Strategy

Minimize the impact of timber harvesting activities on the tourism industry.

Tactics

- Continue to provide input to timber harvesting proposals by applying the *Forest Management Guidelines for the Protection of Tourism Values*.
- Encourage tourist operators to become more involved in the timber management planning process by sponsoring workshops to explain the mechanics of this process and how it relates to current guidelines.
- Encourage forest harvesters to communicate with tourist outfitters so that each group will have a better understanding of the other group's concerns.

Discussion

Promoting better communications between these two user groups would provide each group with a better understanding of the other party's concerns. It could also lead to mutually agreed upon management approaches or compromises.

Problem/Issue 3

There is a perceived conflict between anglers and commercial fishermen on Vermilion, Abram, Pelican and Sandy Beach Lakes in zone 27. Some anglers believe that commercial fishermen are taking a large incidental catch of walleye and lake trout.

Strategy

Reduce perceived conflicts between commercial fishermen and other user groups.

Tactics

- Increase angler and tourist outfitter awareness of species commercially fished.
- Regulate commercial fishing activities seasonally and by gear type to minimize conflicts and incidental catches.

Discussion

The only species commercially fished on Sandybeach, Abram and Pelican Lakes is whitefish. Whitefish and lake herring are commercially fished on Vermilion Lake. Increasing awareness of anglers and tourist operators of the restrictions imposed on commercial fishermen will reduce these perceived conflicts. Directing commercial fishing activities to times of the year when fewer anglers are on these lakes would also reduce potential conflict situations.

Monitoring netting activities of commercial fishermen would ensure that all restrictions are being adhered to. Fisheries managers could dispell misconceptions by citing the findings of a monitoring program.

3.5.3 Environmental Quality

Problem/Issue 1

Resource extraction activities and development proposals such as timber harvesting, mineral exploration and extraction, water crossings, dredging, and cottage or dock construction have the potential to damage fisheries habitat. In some localized instances past activities have degraded critical habitat.

Strategy

Protect, enhance and rehabilitate critical aquatic habitat.

Tactics

- Continue to provide input into resource extraction and resource development proposals by applying the *Guidelines for the Protection of Fish Habitat in Timber Management*.
- Improve information base for lakes by:
  - conducting aquatic habitat inventories;
  - conducting test netting programs;
  - seeking information on specific proposals from affected parties;
  - special field investigations.
- Seek co-operation from local angler groups and tourist outfitters associations in identifying and rehabilitating or improving spawning habitat through participation in the Community Fisheries Involvement Program (CFIP).
- Continue to regulate timing of water related development activities.
- Continue to enforce legislation pertaining to the protection of fisheries habitat.

Discussion

Applying the guidelines for protection of fisheries habitat is the most effective way to protect known

habitat. Identifying gaps in the information base is a way to avoid inadvertent damage to critical habitat.

Seeking assistance from local tourist operators and anglers in identifying and rehabilitating critical spawning areas is an effective way of involving them in fisheries management and making them aware of MNR's concerns.

One example of a cc-operative effort is on Savant Lake in zone 28. MNR staff are working with tourist camp operators to improve walleye spawning areas in the south arm of Savant Lake. (The possibility of aquiring funding for this project under CFIP is currently being investigated.)

Problem/Issue 2

The productivity of bait fish lakes could be reduced as a result of habitat deterioration. There is a lack of information on the effect that harvesting the treed shoreline has on the productivity of bait fish. There is also a reluctance on the part of bait fishermen to disclose the location of their prime bait fish lakes. Without information on the location of bait fish lakes, it is difficult for fisheries managers to protect them. This situation is a concern in the English River (27), Savant River (28), Root River (29) and Trout Lake (37) zones.

Strategy

Protect bait fish habitat.

Tactics

- Identify known bait fish lakes as Areas of Concern during the timber management planning process.
- Encourage bait fishermen to advise MNR of all bait fish waters in their licence area and to actively participate in the timber management planning process.
- Encourage scientific studies to investigate the effect that harvesting the treed shoreline has on the productivity of bait fish.

Discussion

Explaining why fisheries managers need information on the location of bait fish lakes, how this information is used and how disclosing this information would benefit the bait fisherman himself, may help to overcome the bait fisherman's reluctance to provide this information to MNR.

It is also important to gather additional information on the effect that harvesting trees on the shoreline of bait fish lakes has on the productivity of these lakes. This information would allow fisheries managers to provide greater protection to bait fish lakes. Although these studies may not be conducted in this district, the findings would be applicable to bait fish lakes in the district.

Problem/Issue 3

There is a need to expand the information base on known critical muskellunge habitat (i.e. spawning and nursery areas) in the English River (27) and Lac Seul (20) zones. Without this information it is difficult to protect muskie habitat from possible impacts from timber harvesting and other resource extraction activities.

Strategy

Increase information base on the characteristics of critical muskellunge habitat.

Tactics

- Encourage scientific studies to determine habitat requirements for muskellunge.
- Encourage tourist outfitters and anglers to identify suspected muskie spawning and nursery areas.

Discussion

Since very little information on muskellunge and its habitat is currently available, it is necessary to expand the information base. Eagle Lake and Wabigoon Lake in the Dryden District have been selected as study areas. Although these lakes are not within the Sioux Lookout District, the results obtained from these studies can be applied to this area.

Strategy

Protect muskellunge habitat using best available information.

Tactics

- Treat muskie waters similar to lake trout lakes; apply guidelines developed for lake trout lakes to muskie waters.

Discussion

In the interim, the most appropriate way to protect muskellunge habitat is to treat muskie like lake trout. Lake trout lakes have stringent water quality and habitat requirements and can be severely affected by resource extraction activities. Therefore, only restricted harvesting practices are permitted along the shorelines of lake trout lakes. Similar practices should apply to known muskie habitat. Once better information is available, muskie habitat protection guidelines can be strengthened.

3.5.4 Public Involvement and Fisheries Information

Problem/Issue 1

There is a lack of information on the current harvest of sport fish for Abram, Pelican, Botsford and Minnitaki Lakes in the English River zone (27). There is also a lack of general aquatic habitat information for Abram and Pelican Lakes and lake trout habitat information on Minnitaki Lake.

Strategy

Improve the aquatic habitat and harvest information base for Pelican, Abram, Botsford and Minnitaki Lakes.

Tactics

- Conduct a creel survey on these lakes to determine the current level of the sport fish and lake trout harvest.
- Conduct an aquatic habitat inventory on Abram, Pelican and Botsford Lakes to determine an accurate allowable yield for walleye and northern pike.
- Conduct an aquatic habitat inventory on Minnitaki Lake to determine an accurate allowable yield for lake trout.
- Maintain the Restricted Crown Land Camping Zone that has been established around these lakes.

Discussion

A number of different activities are occurring on these lakes. It is therefore important to update and expand the information base for these lakes. Once aquatic habitat information for Abram and Pelican Lakes has been gathered and harvest information for all three lakes is available, the Ministry will be in a better position to determine the type of general recreational use these lakes should provide. One use the Ministry will be re-evaluating for these lakes, is the use of Crown land to provide cottaging opportunities.

Problem/Issue 2

There is a need to gather more accurate aquatic habitat and harvest information for Big Trout Lake in the Severn River Zone (32). Without this information it is not possible to determine if additional angling opportunities exist.

Strategy

Update the information base on Big Trout Lake.

Tactics

- Conduct an aquatic habitat inventory on Big Trout Lake to determine a more accurate allowable yield for lake trout.
- Conduct a study to obtain more accurate information on the subsistence harvest of lake trout on Big Trout Lake.

Discussion

Big Trout Lake may have some potential for additional tourism opportunities. However, without information on the allowable yield and the current harvest for this lake, there is a danger of over-utilizing the resource. Once this information is available, the Ministry will be able to determine if additional opportunities exist.

Problem/Issue 3

There is a need to gather additional information on the growth and development rates of muskellunge. It is known that muskie have a limited ability to withstand elevated levels of exploitation. However, it is not known how many fish can be taken from a particular lake on an annual basis while enabling it to sustain itself as a natural trophy water.

Strategy

Increase data base on muskellunge growth/ development and harvest.

Tactics

- Work with tourist outfitters and anglers to gather information on muskie harvest.

Discussion

One of the critical elements to the better management of muskellunge is more accurate information. Since the size of muskie varies considerably across the region, it is appropriate to gather information concerning growth rates and numbers harvested from specific lakes.

Strategy

Manage muskellunge as a trophy fish.

Tactics

- Non-residents of Canada angling for muskie who do not own real property in Ontario must stay at tourist establishments.
- Develop angler education programs for proper catch/release techniques in co-operation with existing organizations, e.g. Muskies Canada Incorporated.

- Establish a tag system for residents and non-residents.

Discussion

Without adequate information on muskie growth and reproduction rates available, it is important to adopt a more conservative approach concerning harvest. The new regulations developed for muskellunge do this. These regulations establish a daily limit of one and a possession limit of two. The minimum size limit for muskie for waters in the Sioux Lookout District is 86 cm.

An additional measure that would strengthen the Province's commitment to manage muskie as a "trophy fish" is to introduce a tag system for residents and non-residents. Each angler would be permitted to harvest a maximum of two fish per year. A catch limit of one fish per day would also apply.

This tag system would not be introduced during the first implementation period; it is a consideration for future management.

Problem/Issue 4

Through concerns expressed in letters questionnaires and at open houses, it has become apparent that there is a need to increase the awareness of anglers and tourist outfitters of the management methods (e.g. catch and release, slot-size limits, trophy limits) that are available to control harvest. A lack of information on these techniques has led to a reluctance by user groups to accept them.

Strategy

Increase the awareness of tourist outfitters and anglers of the various fisheries management techniques that are available for controlling harvest and seek co-operation in selecting specific waters to experiment with these techniques.

Tactics

- Prepare pamphlets which explain the fisheries management techniques available and outline the expected results.
- Encourage anglers and tourist outfitters to use these techniques on a voluntary basis. Invite tourist outfitters to implement them on selected lakes on an experimental basis.

Discussion

The most effective way to gain public acceptance of the various management techniques is to clearly explain how they work and what results can be expected from them. Whenever tactics are tested out, it is important to inform the public of the results obtained. It is also important to involve the public in suggesting appropriate ways of testing some of these techniques.

Problem/Issue 5

Over the past three years the average landed catch for commercial fishermen has been 34 per cent of the established quotas. Harvest levels vary from one lake to another and one year to the next and are dependent on such things are better sources of employment and market prices of the fish.

Strategy

Provide commercial fishermen with information on ways to improve the efficiency of their operations.

Tactics

- During workshop sessions with commercial fishermen, discuss problems encountered with the present reporting system, outline requirements and ask for suggestions to streamline the process.
- Work with Indian bands to hire liaison persons to assist fishermen with fulfilling the administrative responsibilities related to commercial fishing.
- Increase enforcement efforts regarding the submission of monthly returns. Review returns to ensure that harvest levels are within assigned quotas.

Discussion

Explaining why this information is required and how it is used could result in more accurate and complete returns being submitted. Discussing the problems of completing returns could assist in identifying problems with the current system.

Problem/Issue 6

Some commercial fishermen fail to submit accurate and complete returns on the quantity of fish harvested. This makes it difficult to determine the actual number and species of fish harvested.

Strategy

Stress the importance of complete and accurate returns as a management tool.

Tactics

- During workshop sessions with commercial fishermen, discuss problems encountered with present reporting system, outline requirements

and ask for suggestions to streamline the process.

- Work with Indian bands to hire liaison persons to assist fishermen with fulfilling the legal responsibilities related to commercial fishing.
- Increase enforcement efforts regarding the submission of monthly returns. Review returns to ensure that harvest levels are within assigned quotas.

Discussion

Explaining to commercial fishermen why this information is required and how this information is used could result in more accurate and complete returns being submitted. Discussing the problems of completing returns could assist in identifying problems with the current system.

Problem/Issue 7

High summer losses of bait fish often occur when bait fishermen and dealers use inadequate holding facilities.

Strategy

Stress the importance of using adequate holding facilities to bait fishermen and dealers.

Tactics

- Investigate the feasibility of reprinting the publication *About Bait Fish in Ontario*.
- Assist bait fishermen and dealers when mortality losses are reported.
- Do not renew licences in situations where efforts are not being made to prevent mortality.
- Develop a procedure which requires bait fishermen and dealers to identify what equipment will be used prior to licencing; make this equipment a condition of the licence.

Discussion

The publication *About Bait Fish in Ontario* describes the different equipment that can be used as holding facilities. Making this information available to bait fishermen and dealers would reduce summer losses.

Requiring bait fishermen and bait dealers to demonstrate what facilities they intend to use could allow fisheries managers to identify potential problems before they occur and provide technical advice on how to make the holding facilities more effective. By working with persons experiencing mortality problems, fisheries managers could provide advice on how to overcome existing problems.

Problem/Issue 8

It is currently difficult to determine the actual number of bait fish harvested annually. Harvests need to be more accurately quantified through more consistent reporting of annual returns and monitoring.

Strategy

Stress the importance of annual returns as a monitoring tool.

Tactics

- Hold annual meetings with bait fishermen to discuss mutual problems, concerns and requirements.
- Seek co-operation of bait fishermen in providing harvest information from specific lakes.

Discussion

The quality and accuracy of bait fish harvest information needs to be improved. Providing bait fishermen with information that explains why this data is required and how it could be used as a monitoring tool to ensure that high producing lakes are not over-exploited, is the most practical way to gain co-operation from bait fishermen.

Problem/Issue 9

Recently some local fishermen have expressed a concern about not being able to catch bait fish. They believe the number of bait fish is being reduced by factors not related to overharvesting. This situation is not occurring throughout the district.

Strategy

Improve the information base on bait fish biology.

Tactics

- Work with bait fishermen to solve problems when they are reported.

Discussion

Concerns with bait fish harvests have only been reported since the Open Houses were held last fall. Therefore, the extent of this problem is not known. It will be necessary for bait fishermen to become involved in the process and assist fisheries managers in identifying what factors may be contributing to this situation.

4.0 THE LAC SEUL MANAGEMENT PLAN

4.1 BACKGROUND

The Lac Seul Management Plan was approved in June 1984. Since that time the Ministry of Natural Resources has received a number of proposals for development on Lac Seul. Some of these proposals dealt with activities that were not permitted in the original plan. Others related to matters which had not been clearly addressed in the management plan. It therefore became necessary for the Ministry of Natural Resources to clarify its position on these matters.

To accomplish this it was necessary to update the fisheries data base used to prepare the Lac Seul Management Plan. In April 1985, funding to conduct additional studies on Lac Seul was approved.

The results of the 1985 fisheries studies indicated that walleye on Lac Seul were being harvested at or just above their target levels in all management zones except Zone 2 (see Fig 5). Ministry of Natural Resources staff therefore felt *it was not appropriate to allow any additional development on Lac Seul which would increase the sport fish harvest*. Ministry staff also felt it was necessary to adopt additional management measures to maintain the high quality sport fishery on Lac Seul.

In the spring of 1986, the Ministry of Natural Resources presented the management measures they were proposing to the public. Based on feedback received from the public, modifications were made to these recommendations.

4.2 RELATIONSHIP TO THE DISTRICT FISHERIES MANAGEMENT PLAN

The review of the Lac Seul Management Plan had just been completed when work on the District Fisheries Management Plan began. One of the messages received from the Lac Seul review was to allow the effects of the new recommendations to be evaluated before considering any additional management measures. Therefore it was decided not to propose any new strategies or tactics for Lac Seul during the preparation of the District Fisheries Management Plan. Instead, the approved recommendations from the Lac Seul Management Plan review would be incorporated into the Sioux Lookout District Fisheries Management Plan.

The following section contains the objectives and recommendations of the original Lac Seul Management Plan. It also contains the key findings of the 1985 fisheries studies and the recommendations approved in 1986. These recommendations will be the management tools that will be used to manage the fishery on Lac Seul during the first implementation period of the District Fisheries Management Plan.

4.3 OVERVIEW OF THE LAC SEUL MANAGEMENT PLAN

4.3.1 Plan Objectives

- To recognize and protect the remote recreational character of the lake;
- To maintain the existing high quality of sport fishery on the lake;
- To balance the annual fish harvest with annual fish productivity;
- To work within the framework of the Dryden District and draft West Patricia Land Use Guidelines.

4.3.2 Original Recommendations and Their Status

1. *Develop trophy regulations for northern pike for Lac Seul;*

   Since 1986, no person may possess more than one northern pike in excess of 70 cm (total length) from Lac Seul within their possession limit of six pike.

2. *Establish a walleye sanctuary network for the lake;*

   The Root River Sanctuary (Adam Hay, Dec. 1 to June 21 inclusive) was put into regulation to protect pre-spawning walleye congregations. Another sanctuary was established at the mouth of the Wenasaga River (April 14 to May 31 inclusive) in the spring of 1986.

3. *Negotiate the removal of walleye quotas from commercial fishing licences in Zones 2 and 6;*

   In 1984, quotas for walleye were purchased by Ministry of Natural Resources from commercial fishermen on Lac Seul. The only remaining quotas are for whitefish and herring.

4. *Encourage the development of houseboat regulations;*

   No additional commercial houseboats, providing overnight accommodations for non-residents, will be permitted on Lac Seul beyond those presently recognized (i.e. total 14). Commercial houseboats are prohibited from Zone 3, may travel through Zone 1 and 4 and may overnight in Zones 2, 5, 6 and 7. Private and commercial

houseboats cannot be left unattended on Crown land. Non-residents of Canada may not overnight on Crown land in private houseboats.

5. *Develop a Crown land camping network to control non-resident campers on Lac Seul;*

   In 1985 Lac Seul was designated a restricted camping zone. This meant that non-residents of Canada could not camp within half a kilometre of the shore of Lac Seul on Crown land. A number of Commercial campsites were established to accommodate non-resident campers on the lake and transferred to the private sector to operate.

6. *Control the location and number of boat caches on Lac Seul through the enforcement of the Boat Cache Policy;*

   Cached boats now require a boat cache sticker if they occupy Crown land. Non-residents of Canada cannot cache boats on Crown land. Through negotiations, all commercial boat caches were removed from Zone 3 (Vaughan Lake) before July 1, 1985. No new boat caches of any kind will be permitted in Zone 3.

7. *Site specific development proposals will be reviewed on an individual basis. Any future disposition of Crown land must be in accordance with the remote recreational character of the lake;*

   This was being carried out. A need to clarify this recommendation was identified.

8. *Access road development in the vicinity of Lac Seul will continue to be restricted.*

   This recommendation was being followed. However, a need to clarify the specific procedure being followed was identified.

.4 1985 FISHERIES STUDIES

he most important results obtained from data ollected during these studies was the 1985 angler arvest estimates and the harvest target levels. able 1 illustrates this information for walleye and orthern pike and compares the current harvest ituation with the information used to develop the ac Seul Management Plan in 1984.

larvest is the estimated weight of fish taken by nglers in a given year. The 1985 harvest information or Lac Seul has been calculated from creel survey nformation.

larvest targets are the predicted maximum levels at vhich fish may be harvested from Lac Seul without dversely affecting the fish populations. The 1985 harvest targets have been revised on the basis of more accurate water chemistry data and index netting results from Zones 1 and 3.

In 1985, on a lakewide basis walleye are being harvested at, or just above, a level which Lac Seul can sustain (see Table 2). Zones 3, 4, 6 and 7 showed an overhavest for walleye. Overharvest for pike was occurring in Zone 3 only, but an overharvest situation for trophy pike (greater than 70 cm) was occurring lakewide.

Since walleye were being harvested at or just above their target levels, to maintain a high quality sport fishery, it was decided that *SPORT FISH HARVEST ON LAC SEUL SHOULD NOT BE ALLOWED TO INCREASE AT THIS TIME.*

The weather during the summer of 1985 was atypical i.e. unusually damp and rainy. There was some concern that the results obtained from the creel census may not have provided a true indication of the "normal" angling pressure on the lake. Therefore it was decided to conduct another creel census on Lac Seul in 1986. These results were not available during the review of the management plan because the creel survey was ongoing at that time. This data was analyzed in the fall of 1986. As shown in Table 2, angling pressure for walleye in 1986 was greater than in 1985. *THIS REINFORCED THE NEED TO RESTRICT ANY ADDITIONAL DEVELOPMENT ON LAC SEUL WHICH WOULD INCREASE SPORT FISH HARVEST.*

4.5 RECOMMENDATIONS

4.5.1 Fish Sanctuaries

- Implement, by means of a variation order, a winter fish sanctuary on Vaughan Lake (Zone 3) extending from December 1 through to the opening of the walleye season (3rd Saturday in May) starting in December 1986.
- Extend the fish sanctuary on Vaughan Lake from the third Saturday in May to June 5 inclusive. The extension is to be in place for the 1988 fishing season.

4.5.2 Slot-Size Limits

- Conduct an information program during the summer of 1987 that explains the concept behind slot-size limits and their potential as a walleye management tool for Lac Seul.
- Monitor public reaction to the slot-size information program. If there is a strong degree of public support, consider the implementation of slot-sizes at a later date.

FIG.5

LAC SEUL MANAGEMENT ZONES

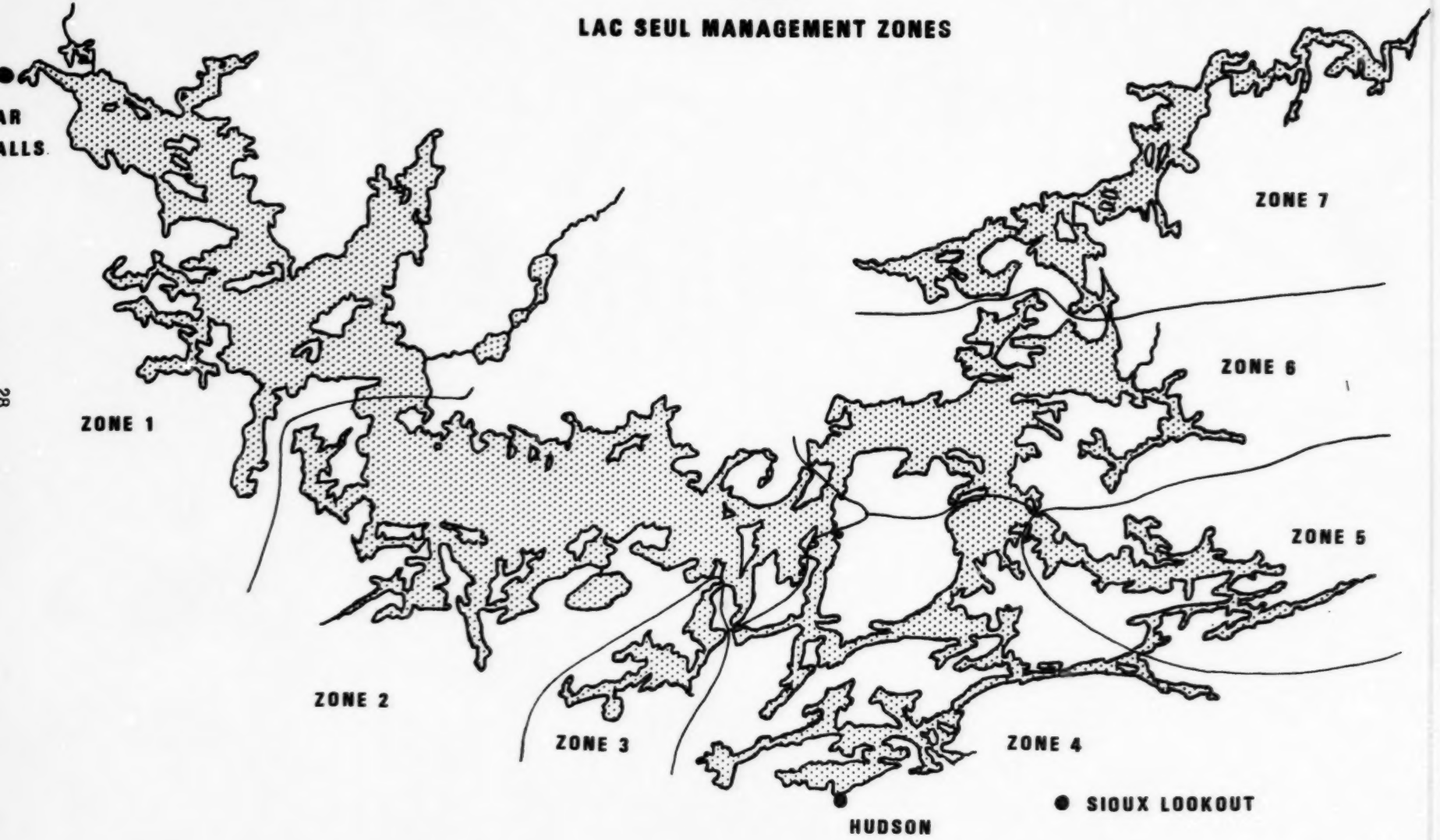


TABLE 2

HARVEST AND HARVEST TARGETS FOR LAC SEUL WALLEYE AND PIKE
(kg)

one	LAC SEUL PLAN 1979 Harvest Target*	Harvest	1985 Harvest Target*	Harvest	1986 Harvest
1	29,454	18,457	21,439	20,752	26,712
2	29,708	19,224	33,977	12,414	10,585
3	3,753	14,213	12,156	26,807	31,214
4	15,156	21,068	17,134	19,730	26,850
5	5,818	5,733	6,500	6,585	9,693
6	11,833	17,754	13,707	31,370	27,906
7	14,280	5,366	15,586	24,413	27,070
TOTAL	**110,002**	**101,815**	**120,499**	**142,071**	**160,030**

NORTHERN PIKE

one	LAC SEUL PLAN 1979 Harvest Target*	Harvest	1985 Harvest Target*	Harvest	1986 Harvest
1	17,108	52,219	29,177	26,939	21,637
2	17,139	9,534	30,057	6,627	8,669
3	2,165	5,147	3,585	6,944	6,332
4	8,744	18,298	15,157	10,955	12,625
5	3,357	3,496	5,750	5,230	1,549
6	6,827	5,096	12,125	9,595	6,514
7	8,238	1,281	13,788	11,452	13,524
TOTAL	**63,578**	**95,071**	**109,639**	**77,742**	**70,850**

*Harvest targets are the maximum levels at which MNR predicts fish may be harvested from a lake without adversely affecting fish populations.

Note: In 1985 walleye were overharvested in Zones 3, 4, 6 and 7.
Pike were overharvested in Zone 3.

In 1986 walleye were overharvested in Zones 1, 3, 4, 5, 6 and 7.
There was no overharvest of pike in any zone.

4.5.3 Houseboats

- Incorporate the Sioux Lookout District's procedure to control commercial houseboats into the Lac Seul Management Plan.
- Incorporate the Northwestern Region's procedure concerning private houseboats into the Lac Seul Management Plan.

(See the following section for a description of procedures.)

4.5.4 Development Proposals on Crown Land

- Cottaging on Crown land on Lac Seul will be maintained at existing levels.
- The number of commercial boat caches on Lac Seul will be maintained at existing levels.
- Additional private boat caches will be permitted in all areas of Lac Seul except Vaughan Lake (Zone 3).
- Commercial water lots will be made available on Lac Seul only to provide essential services to existing operations or new developments which do not increase sport fishing pressure.
- Restricted outpost camps, for purposes of moose or bear hunting, will not be permitted on Crown land on Lac Seul.
- All requests for Crown land will be treated on an individual basis. These requests will be processed using the procedure for evaluating Crown land development proposals on Lac Seul.

(See following section for a description of procedures.)

4.5.5 Conversion of Existing Tourism Facilities

- MNR will not approve the conversion of cabin, lodge or outpost beds to houseboat operations, where the intent is to provide overnight accommodation for non-residents.

4.5.6 Access Points

- Existing access points, both official and unofficial, will be identified in the Lac Seul Plan. Where new unauthorized access to the lake is created on Crown land, steps will be taken immediately to remove it.

4.5.7 Access Roads

- Incorporate the access road procedure for Lac Seul into the Lac Seul Management Plan.
- In situations where it becomes necessary to construct a road to Lac Seul across a water body leading to the lake or within 650 metres of the lake, the road proposal will be carefully reviewed and the public will have an opportunity to comment on the proposal.

(See following section for a description of procedures.)

4.5.8 Ice Roads

- Proposals to construct ice roads across Lac Seul will be reviewed on a case by case basis. All proposals must outline what steps are being taken to minimize both pollution and unauthorized access to the lake. The public will have an opportunity to review any specific proposals to construct ice roads across Lac Seul.

4.5.9 Plan Review

- The Lac Seul Management Plan will be incorporated into the District Fisheries Management Plan. Review of the Lac Seul Management Plan will occur during the general review of the Fisheries Management Plan. Public participation will form a part of the overall review process.

4.5.10 Revision of Division Boundary

- Revise the boundaries of Division 30, in the Ontario Fisheries Regulations, to ensure that water bodies directly accessible from Lac Seul via streams and creeks are included within this Division.

4.5.11 Prescribed Burning

- That limited timber harvesting be permitted to occur at specific locations within the 120 metre reserve located around Lac Seul prior to planned prescribed burns, and that the public have an opportunity to comment upon the harvest/burn areas during the review of the timber management plan.

4.6 DESCRIPTION OF PROCEDURES

4.6.1 Procedure for Commercial Houseboats

Fourteen commercial houseboats are authorized to provide overnight accommodation to non-residents on Lac Seul.

No additional authority will be granted to provide overnight accommodation in houseboats to non-residents on Lac Seul.

Houseboats will be authorized by Land Use Permits. The permit will authorize:

- which zones houseboats may overnight in,
- which zones houseboats may travel through,
- which zones prohibit houseboats.

4.6.2 Procedure for Private Houseboats

When occupied by residents of Canada, private houseboats will be allowed to occupy Crown land sites on Lac Seul for up to 21 days.

When not in use (ie. unoccupied), resident houseboats must be stored at "private sites". Private sites include private and commercial Land Use Permit sites, private land and commercial water lots.

Non-residents of Canada may use resident houseboats on a day use basis only.

4.6.3 Procedure for Evaluating Crown Land Development Proposals on Lac Seul

When a request for Crown land is received, the District Manager in the District where the land being applied for is situated will:

a) meet with a representative from the Ministry of Tourism and Recreation and the applicant to outline the Ministry of Natural Resources concerns regarding development which will impact on the sport fishery;

b) explore alternatives with MTR representative and applicant e.g.

- availability of private land
- Crown land without water frontage
- redesign of existing layout

c) verify that the intended use of Crown land will not impact upon the sport fishery, then forward the proposal to the Sioux Lookout District Manager for monitoring compliance with the Lac Seul Management Plan;

d) initiate a contractual agreement with the applicant to the effect that the applicant will not develop facilities that create an increase in sports fishing pressure;

e) determine the necessity of submitting architectural or engineering stamp — approved site plans and construction working drawings;

f) prepare the Crown Lease or Land Use Permit with conditions of contract and completion of stamped approved plans (if required) forming part of either document.

4.6.4 Access Road Procedure — Lac Seul

1. All roads proposed to be developed in any season must be accurately mapped in the annual work schedule.
2. Any road to be constructed within 650 metres of Lac Seul must be of a LOW or WINTER quality.
3. Every road must pass through a "NATURAL TRAP" where, in the opinion of the Ministry District, access will be prevented upon cessation of timber harvesting operations.
4. More than one "TRAP" may be required and/or the removal of a major crossing installation BEYOND the 650 metre limit.
5. To validate road locations, any or all of the proposed roads may be field checked prior to construction in the presence of company personnel and prior to District Manager's approval.

5.0 IMPLEMENTATION

This plan has been prepared to provide direction for fisheries management activities within the Sioux Lookout District to the year 2000. Throughout this period all activities undertaken should be consistent with the strategies and tactics which have been selected to achieve the stated objectives and targets.

Generally, strategies identified in this fisheries management plan will be implemented through:

- The preparation of implementation schedules;
- Programs and projects approved and funded under the Ministry of Natural Resources work planning process;
- Input to other programs carried out by the Ministry of Natural Resources;
- Co-operative efforts with local organizations, associations or private interest groups;
- Review and approval of work plans and proposals from industries, municipal government and other government agencies.

The specific management strategies and tactics to be undertaken during the first operating period are outlined in the Implementation Schedule (Table 3). Some of these strategies and tactics can be carried out under present levels of funding and staffing. Others will require additional funding and staff.

Routine planning and administrative functions have not been included. Similarly, enforcement activities have not been outlined as they have been identified in a separate enforcement plan for the Sioux Lookout District. However, it should be realized that many strategies and tactics identified in this plan, and existing fisheries legislation require enforcement that will be carried out on an ongoing basis.

Annual work plans will be developed from priorities established in this plan. The annual work plan will also address the cost and scheduling of specific projects.

Projects which relate to specific tactics that are not identified in this schedule will be identified in subsequent implementation schedules.

TABLE 3A

FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE, 1987-91.
SIOUX LOOKOUT DISTRICT

1. ACTIVITIES WHICH CAN BE UNDERTAKEN WITH PRESENT LEVEL OF FUNDING

STRATEGIES/TACTICS		LOCATION	PROBLEM/ISSUE ADDRESSED	LEGISLATIVE CHANGE REQUIRED	
				YES	NO
i) PROVISION OF QUALITY ANGLER OPPORTUNITIES					
STRATEGY:	Gather information on the lakes with potential to provide additional angling opportunities.		Need to gather information prior to providing opportunities.		
TACTICS:	Work with MTR and tourism industry to develop a mechanism for disposing of tourism opportunities.	General, as required			X
	Review access road proposals to identify angling opportunities for local residents.	Road corridor proposals In Zone 29			X
STRATEGY:	Increase economic and social value of fisheries resource allocated to commercial fishing industry.		Indian bands with commercial fishing licences have expressed a desire to convert a portion of commercial fish quotas to sport fish opportunities.		
TACTICS:	Promote conversion of commercial quotas of walleye and northern pike to sport fishing opportunities.	Sachigo Lake Band: Echoing Lake (Zone 32) Kingfisher Lake Band: Maria, Misamikwash Lakes, Asheweig River (Zone 32) Bearskin Lake Band: Mumekun, Jackfish, Makoop, Misquamaebin Lakes (Zone 32)			X
	Investigate feasibility of converting quotas for sturgeon to sport fish opportunities.	Zones 30, 31, 32			X

TABLE 3A

FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE, 1987-91.
SIOUX LOOKOUT DISTRICT
(continued)

1. ACTIVITIES WHICH CAN BE UNDERTAKEN WITH PRESENT LEVEL OF FUNDING

STRATEGIES/TACTICS		LOCATION	PROBLEM/ISSUE ADDRESSED	LEGISLATIVE CHANGE REQUIRED	
				YES	NO
i) PROVISION OF QUALITY ANGLER OPPORTUNITIES					
STRATEGY:	Reduce the number of "trophy size" walleye *and northern pike harvested* by individual anglers.		Too many "trophy size" walleye *and northern pike are being* harvested within existing possession limits.		
TACTICS:	Introduce trophy limit for walleye. Only one walleye within daily and possession limit may be greater than 50 cm (19.5 in.).	All Zones		X	
	Introduce trophy limit for northern pike. Only one pike within daily and possession limit may be greater than 70 cm (27.5 in.).	All Zones		X	
STRATEGY:	Reduce harvest of walleye and northern pike on Savant Lake.		Concern about overharvest of walleye and northern pike on Savant Lake.		
TACTICS:	Reduce creel limit for walleye and northern pike to four fish of each species through imposition of camp rules.	Savant Lake (Zone 28)			X
	Introduce tackle restrictions; allow only single, barbless hooks.	Savant Lake (Zone 28)			X
	Work with tourist camp operators to gather pre- and post-harvest information.	Savant Lake (Zone 28)			X

TABLE 3A

FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE, 1987-91.
SIOUX LOOKOUT DISTRICT
(continued)

1. ACTIVITIES WHICH CAN BE UNDERTAKEN WITH PRESENT LEVEL OF FUNDING

STRATEGIES/TACTICS	LOCATION	PROBLEM/ISSUE ADDRESSED	LEGISLATIVE CHANGE REQUIRED	
			YES	NO
i) PROVISION OF QUALITY ANGLER OPPORTUNITIES				
STRATEGY: Determine if there is an overharvest of walleye due to boat caches on "problem lakes".		Overharvest of walleye due to boat caches on "problem lakes".		
TACTICS: Use existing data to determine allowable yield and estimate current harvest of walleye.	Twain, Tuktegewik and Wapesi Lakes (Zone 29); Jorick Lake (Zone 27)			X
Where overharvest can be attributed to commercial boat caches, seek solutions in concern with all operators on that lake.	Twain, Tuktegewik and Wapesi Lakes (Zone 29); Jorick Lake (Zone 27)			X
Control length of operating season for boat cache operators.				X
Implement Crown land camping restriction (e.g. Wapesi Lake).			X	
Where overharvest cannot be attributed to commercial boat caches, work with interested parties to reduce harvest of walleye to allowable yield.	Twain, Tuktegewik and Wapesi Lakes (Zone 29); Jorick Lake (Zone 27)			X
STRATEGY: Ensure future angler harvest of lake trout remains below the allowable yield.		Harvest of lake trout is exceeding or approaching the allowable yield.		
TACTICS: Non-residents of Canada angling for lake trout, who do not own real property in Ontario, must stay at tourist establishments.	All Zones		X	
Non-residents of Canada who are in the company of a legal resident angler may use that resident's limit to angler for lake trout.	All Zones		X	
Reduce catch and possession limit from three lake trout to two.	All Zones		X	

TABLE 3A

FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE, 1987-91.
SIOUX LOOKOUT DISTRICT
(continued)

1. ACTIVITIES WHICH CAN BE UNDERTAKEN WITH PRESENT LEVEL OF FUNDING

STRATEGIES/TACTICS		LOCATION	PROBLEM/ISSUE ADDRESSED	LEGISLATIVE CHANGE REQUIRED	
				YES	NO
I) PROVISION OF QUALITY ANGLER OPPORTUNITIES					
	Permit the use of artificial bait only, when angling for lake trout.	Vermilion, Little Vermilion, Zarn, Forty Mile and Minnitaki Lakes (Zone 27)		X	
	Reduce the catch and possession limit for lake trout to one, or close the season for lake trout from March 01 to the third Saturday in May each year.	Vermilion, Little Vermilion, Zarn, Forty Mile and Minnitaki Lakes (Zone 27)		X	
STRATEGY:	Provide alternative angling opportunities to reduce the angling pressure on lake trout.		Harvest of lake trout is exceeding or approaching the allowable yield.		
TACTICS:	Continue to stock brook trout on a put-grow-and-take basis.	Nylias, Snyder, Highway Lakes (Zone 27)			X
	Provide new angling opportunities by stocking splake.	Little Moose Lake, XF 17-12 (Zone 28)			X
STRATEGY:	Reduce the number of large walleye an individual angler may harvest.	XF 17-11 (Milage 35 Marchington Road - Zone 35)	Too many large size walleye being caught in Root River during the fall.		
TACTICS:	Extend Restricted Crown Land Camping Area on Root River to Root Bay on Lake St. Joseph.	Root River, Zone 29 and Zone 30		X	
	Apply slot-size limit for walleye proposed for Lac Seul to the Root River, up to the dam on Lake St. Joseph.	Root River, Zone 29 and Zone 30		X	
	Establish a year round sanctuary on the Root River, from Nattaway Falls to Root Bay on Lake St. Joseph.	Root River, Zone 29 and Zone 30		X	

TABLE 3A

FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE, 1987-91.
SIOUX LOOKOUT DISTRICT
(continued)

1. ACTIVITIES WHICH CAN BE UNDERTAKEN WITH PRESENT LEVEL OF FUNDING

STRATEGIES/TACTICS		LOCATION	PROBLEM/ISSUE ADDRESSED	LEGISLATIVE CHANGE REQUIRED	
				YES	NO
i) PROVISION OF QUALITY ANGLER OPPORTUNITIES					
STRATEGY:	Manage lake trout as a trophy fish on Echoing Lake.		Too many "trophy size" lake trout being taken on Echoing Lake.		
TACTICS:	Establish a trophy limit; only on fish within daily and possession limit may be greater than 65 cm.	Echoing Lake (Zone 32)		X	
	Introduce tackle restrictions; only allow the use of a single, barbless hook.	Echoing Lake (Zone 32)		X	
	Assess impact of trophy limit through pre- and post-monitoring of angler harvests.	Echoing Lake (Zone 32)			X
STRATEGY:	Reduce the harvest of walleye to a level below the allowable yield.		The harvest of walleye on Lac Seul is above the allowable yield level.		
TACTICS:	Introduce a slot-size limit for walleye, where walleye between 45.7 cm (18 in) and 53.3 cm (21 in) which are caught must be immediately returned to the water.	Lac Seul, Zone 20		X	
ii) CONFLICTS AMONG USERS OF THE FISHERIES RESOURCE					
STRATEGY:	Minimize conflict situation between tourist outfitters and anglers.		Road access to lakes with tourism facilities.		
TACTICS:	Continue to provide input to access roads proposals by applying the *Forest Management Guidelines for the Protection of Tourism Values.*	Zones 27, 28, 19, 30, 31, 37			X
	Evaluate need to establish Restricted Crown Land Camping Areas on a case-by-case basis.	Zones 27, 28, 29, 30, 31, 37		X	

TABLE 3A

FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE, 1987-91.
SIOUX LOOKOUT DISTRICT
(continued)

1. ACTIVITIES WHICH CAN BE UNDERTAKEN WITH PRESENT LEVEL OF FUNDING

STRATEGIES/TACTICS		LOCATION	PROBLEM/ISSUE ADDRESSED	LEGISLATIVE CHANGE REQUIRED	
				YES	NO
ii) CONFLICTS AMONG USERS OF THE FISHERIES RESOURCE					
	Provide resident anglers with additional angling opportunities by locating proposed access roads adjacent to undeveloped lakes with sport fishing opportunities.	Zones 27, 28, 29, 30			X
	Encourage all potentially affected parties to participate in the road planning process.	Zones 27, 28, 29, 30, 31, 37			X
STRATEGY:	Reduce perceived conflicts between commercial fishermen and other user groups.		Perceived conflict between anglers and commercial fishermen.		
TACTICS:	Increase angler and tourist outfitter awareness of species commercially fished.	Vermilion, Minnitaki, Abram, Pelican and Sandy Beach Lakes (Zone 27)			X
	Regulate commercial fishing activities seasonally and by gear.	Vermilion, Minnitaki, Abram, Pelican and Sandy Beach Lakes (Zone 27)			X
STRATEGY:	Minimize impact of timber harvesting activities on tourism industry.		Conflict between tourism industry and timber companies regarding timber harvesting near shorelines of lakes.		
TACTICS:	Continue to apply Forest Management Guidelines for the Protection of Tourism Values.	Zones 27, 28, 29, 30, 37			X
	Encourage involvement of tourist outfitters in timber management planning process by sponsoring workshops.	In communities whose locations will be chosen when workshops are organized.			X
	Encourage better communication between outfitters and forest harvesters.				X

TABLE 3A

FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE, 1987-91.
SIOUX LOOKOUT DISTRICT
(continued)

1. ACTIVITIES WHICH CAN BE UNDERTAKEN WITH PRESENT LEVEL OF FUNDING

STRATEGIES/TACTICS		LOCATION	PROBLEM/ISSUE ADDRESSED	LEGISLATIVE CHANGE REQUIRED	
				YES	NO
ii) CONFLICTS AMONG USERS OF THE FISHERIES RESOURCE					
STRATEGY:	Reduce perceived conflicts between commercial fishermen and other user groups.		Perceived conflict between anglers and commercial fishermen.		
TACTICS:	Increase angler and tourist outfitter awareness of species commercially fished.	Vermilion, Minnitaki, Abram, Pelican and Sandy Beach Lakes (Zone 27)			X
	Regulate commercial fishing activities seasonally and by gear.	Vermilion, Minnitaki, Abram, Pelican and Sandy Beach Lakes (Zone 27)			X
iii) ENVIRONMENTAL QUALITY					
STRATEGY:	Protect enhance and rehabilitate critical aquatic habitat.		Resource extraction activities and development proposals have the potential to damage fisheries habitat.		
TACTICS:	Continue to provide input by applying *Guidelines for the Protection of Fish Habitat in Timber Management.*	District wide, as required.			X
	Seek information on specific proposals from affected parties.	District wide, as required.			X
	Continue to regulate timing of water related development activities.	District wide, as required.			X
	Continue to enforce pertinent legislation.	District wide.			X

TABLE 3A

FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE, 1987-91.
SIOUX LOOKOUT DISTRICT
(continued)

1. ACTIVITIES WHICH CAN BE UNDERTAKEN WITH PRESENT LEVEL OF FUNDING

STRATEGIES/TACTICS		LOCATION	PROBLEM/ISSUE ADDRESSED	LEGISLATIVE CHANGE REQUIRED	
				YES	NO
iii) ENVIRONMENTAL QUALITY					
STRATEGY:	Protect bait fish habitat.		Productivity of bait fish lakes could be reduced as a result of habitat deterioration.		
TACTICS:	Identify known bait fish lakes during timber management planning process.	Zones 27, 28, 29, 37			X
	Encourage bait fishermen to actively participate in the timber management planning process.	Zones 27, 28, 29, 37			X
STRATEGY:	Protect, enhance and rehabilitate critical aquatic habitat.		Resource extraction activities and development proposals have the potential to damage fisheries habitat.		
TACTICS:	Continue to provide input by applying *Guidelines for the Protection of Fish Habitat in Timber Management.*	District wide, as required.			X
	Seek information on specific proposals from affected parties.	District wide, as required.			X
	Continue to regulate timing of water related development activities.	District wide, as required.			X
	Continue to enforce pertinent legislation.	District wide.			X

TABLE 3A

FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE, 1987-91.
SIOUX LOOKOUT DISTRICT
(continued)

1. ACTIVITIES WHICH CAN BE UNDERTAKEN WITH PRESENT LEVEL OF FUNDING

STRATEGIES/TACTICS		LOCATION	PROBLEM/ISSUE ADDRESSED	LEGISLATIVE CHANGE REQUIRED	
				YES	NO
iv) PUBLIC INVOLVEMENT AND FISHERIES INFORMATION					
STRATEGY:	Stress importance of using adequate holding facilities to bait fishermen and dealers.		High summertime losses occur when inadequate holding facilities are used.		
TACTICS:	Assist bait fishermen and dealers when mortality losses are reported.	General, as required.			X
	Do not renew licences in situations where efforts are not being made to reduce mortality.	General, as required.			X
	Require fishermen and dealers to identify what equipment will be used prior to licencing; requirements covered under policy.	General, as required.			X
STRATEGY:	Stress importance of accurate annual returns as a monitoring tool.		It is difficult to determine the actual number of bait fish harvested.		
TACTICS:	Seek co-operation of bait fishermen in providing harvest information from specific lakes.	Zones 27, 28, 29, 30, 37			X

TABLE 3B

FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE, 1987-91.
SIOUX LOOKOUT DISTRICT

2. ACTIVITIES WHICH REQUIRE ADDITIONAL FUNDING

STRATEGIES/TACTICS		LOCATION	PROBLEM/ISSUE ADDRESSED	LEGISLATIVE CHANGE REQUIRED	
				YES	NO
i) PROVISION OF QUALITY ANGLER OPPORTUNITIES					
STRATEGY:	Gather information on the lakes with potential to provide angling opportunities for residents and tourism industry.		Need to gather information prior to providing opportunities.		
TACTICS:	Collect lake specific information on pattern of existing use and resource potential.	DeLesseps and St. Raphael Lakes (Zone 28) St. Joseph, Gull, Jackpine, Namemakoseka, Williams, Doran and Meen Lakes (Zone 30)			X
	Study feasibility of developing an access point on east end of Lake St. Joseph.	Lake St. Joseph (Zone 30)			X
STRATEGY:	Re-introduce muskellunge into Pelican Lake to re-establish a self-sustaining population.		Populations of muskellunge in Pelican Lake have declined below the self-sustaining level.		
TACTICS:	Continue to transfer muskellunge from Muskie and Hooch Lakes to Pelican Lake under CFIP.	Pelican Lake (Zone 27)			X
STRATEGY:	Reduce the harvest of walleye to a level below allowable yield.		The harvest of walleye on Lac Seul is above the allowable yield level.		X
TACTICS:	Post assessment of angler harvest to measure effectiveness of slot-size limit.	Lac Seul, Zone 20			X

TABLE 3B

FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE, 1987-91.
SIOUX LOOKOUT DISTRICT
(continued)

2. ACTIVITIES WHICH REQUIRE ADDITIONAL FUNDING

STRATEGIES/TACTICS	LOCATION	PROBLEM/ISSUE ADDRESSED	LEGISLATIVE CHANGE REQUIRED	
			YES	NO
iii) ENVIRONMENTAL QUALITY				
STRATEGY: Protect bait fish habitat.		Productivity of bait fish lakes could be reduced as a result of habitat deterioration.		
TACTICS: Encourage scientific studies to investigate effect of harvesting the treed shoreline on the productivity of bait fish.	Northwestern Region. Area to be selected during development of study.			X
STRATEGY: Protect, enhance and rehabilitate critical aquatic habitat.		Resource extraction activities and development proposals have the potential to damage fisheries habitat.		
TACTICS: Improve information base for lakes by:				
conducting aquatic habitat inventories;	Bertand, Meen, Dawson, Hill, Lawson, Little Miniss, Quaint, Wertheim, Taper Lakes (Zone 28) Sesikinaga Lake (Zone 29) Kaginot, Kezik, Maxim, Saddle Lakes (Zone 30) Margaret Lake (Zone 37) Limited, Keneally, Grove, Deek, WF85-03, WF85-05, WF 75-16, WF 75-04 (Zone 19) Rob, Binson, Runway, Apex, Arc, Minko, Dunn (Zone 28)			X
conducting test netting programs;	As required.			X
special field investigations.	As required.			X

TABLE 3B

FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE, 1987-91.
SIOUX LOOKOUT DISTRICT
(continued)

2. ACTIVITIES WHICH REQUIRE ADDITIONAL FUNDING

STRATEGIES/TACTICS		LOCATION	PROBLEM/ISSUE ADDRESSED	LEGISLATIVE CHANGE REQUIRED	
				YES	NO
iv) PUBLIC INVOLVEMENT AND FISHERIES INFORMATION					
STRATEGY:	Increase awareness of tourist outfitters and anglers of the various fisheries management techniques that are available for controlling harvest.		There is a need to increase the awareness of anglers and tourist outfitters of the management techniques that are available to control harvest.		
TACTICS:	Prepare pamphlets which explain the fisheries management techniques available.	General nature			X
	Encourage anglers and tourist outfitters to use these techniques on a voluntary basis.	All Zones			X
STRATEGY:	Provide commercial fishermen with information on ways to improve the efficiency of their operation.		Over the past three years the average landed catch for commercial fishermen has been 34 per cent of the established quotas.		
TACTICS:	Hold workshops with commercial fishermen to discuss problems, concerns, marketing techniques and to introduce alternative methods of catching fish.	In communities where commercial fishermen reside.			X
STRATEGY:	Stress the importance of complete and accurate returns as a management tool.		Some commercial fishermen fail to submit accurate and complete returns on the quantity of fish harvested.		
TACTICS:	During workshop sessions discuss problems encountered with present reporting system.	In communities where commercial fishermen reside.			X
	Work with Indian bands to hire liaison persons to assist with fulfilling administrative responsibilities related to commercial fishing.	In communities where commercial fishermen reside.			X
	Increase enforcement efforts regarding the submission of monthly returns.	Zones 27, 30, 31, 32			X

TABLE 3B

FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE, 1987-91.
SIOUX LOOKOUT DISTRICT
(continued)

2. ACTIVITIES WHICH REQUIRE ADDITIONAL FUNDING

STRATEGIES/TACTICS		LOCATION	PROBLEM/ISSUE ADDRESSED	LEGISLATIVE CHANGE REQUIRED	
				YES	NO
iv) PUBLIC INVOLVEMENT AND FISHERIES INFORMATION					
STRATEGY:	Improve aquatic habitat information for Pelican, Abram, Minnitaki and Botsford Lakes.		Lack of harvest and aquatic habitat information for Pelican, Abram, Minnitaki and Botsford Lakes.		
TACTICS:	Conduct a creel survey to determine the current level of harvest of sport fish and lake trout.	Pelican, Abram, Minnitaki and Botsford Lakes (Zone 27)			X
	Conduct an aquatic habitat inventory to determine an accurate allowable yield for walleye and northern pike.	Pelican and Abram Lakes (Zone 27)			X
	Conduct an aquatic habitat inventory to determine an accurate allowable yield for lake trout.	Minnitaki Lake (Zone 27)			X
STRATEGY:	Update information base on Big Trout Lake.		Need for more accurate fisheries management information for Big Trout Lake.		
TACTICS:	Update aquatic habitat information.	Big Trout Lake (Zone 32)			X
	Obtain more accurate information on the subsistence harvest of lake trout.	Big Trout Lake (Zone 32)			X
STRATEGY:	Increase information base on critical muskellunge habitat.		Need to expand information base on critical muskellunge habitat.		
TACTICS:	Encourage tourist outfitters and anglers to identify suspected muskie spawning and nursery areas.	Zones 20, 27			X

TABLE 3B

FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE, 1987-91.
SIOUX LOOKOUT DISTRICT
(continued)

2. ACTIVITIES WHICH REQUIRE ADDITIONAL FUNDING

STRATEGIES/TACTICS		LOCATION	PROBLEM/ISSUE ADDRESSED	LEGISLATIVE CHANGE REQUIRED	
				YES	NO
iv) PUBLIC INVOLVEMENT AND FISHERIES INFORMATION					
STRATEGY:	Increase data base on growth/ development and harvest of muskellunge.		Need to gather additional information on growth and development rates of muskellunge.		
TACTICS:	Conduct creel survey.	Vermilion and Little Vermilion Lakes (Zone 27)			X
	Work with tourist outfitters and anglers to gather harvest information.	Zones 20, 27			X
STRATEGY:	Manage muskie as a trophy fish.		Need to adopt a more conservative approach to muskie harvest in lieu of adequate information.		
TACTICS:	Non-residents of Canada angling for muskie, who do not own real property in Ontario must stay at tourist establishments.	Zones 27,		X	
	Develop angler education programs for proper catch and release techniques in co-operation with existing organizations.	General			X
STRATEGY:	Stress the importance of using adequate holding facilities to bait fishermen and dealers.		High summer losses of bait fish often occur when bait fishermen and dealers use inadequate holding facilities.		
TACTICS:	Investigate the feasibility of reprinting the publication *About Bait Fish in Ontario*.	General nature			X
STRATEGY:	Stress the importance of annual returns as a monitoring tool.		It is difficult to determine the actual number of bait fish harvested.		
TACTICS:	Hold annual meetings with bait fishermen to discuss mutual problems, concerns and requirements.	Communities where bait fishermen reside			X

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GLOSSARY

ALLOWABLE YIELD

The weight of fish by species, that can be harvested annually from a lake, on a sustained basis, while maintaining angling quality.

ANGLER OPPORTUNITY

Any amount of effort in a day, constitutes an angler day, for the purpose of converting angler hours to angler days, 6 hours will be used.

AQUATIC HABITAT INVENTORY

A basic study of a lake or river to determine species present, water chemistry, depth, water volume and other characteristics. The information obtained can be used to determine the potential and allowable yield of a lake.

AREAS OF CONCERN

Areas requiring particular management prescription in order to maintain or improve resource values such as a fish and wildlife habitat, forest genetic resources, scenic areas and other recreational and tourism values.

BAIT FISH

Any fish species that can legally be harvested by the commercial bait fish industry.

BOAT CACHE

One or more boats authorized to be left unattended on Crown Land for a period of time.

COARSE FISH

Fish species which are not normally sought by recreational anglers (e.g.) suckers, ling, etc.

COLDWATER LAKES

Those lakes having characteristics which would support salmonids such as lake trout or brook trout. Usually are relatively deep, clearwater lakes.

COLDWATER STREAMS

Those streams having characteristics which would support salmonids such as brook trout. The water is generally clear and cold.

COMMERCIAL FISH

Any fish that are harvested by the commercial fishing industry under the authority of a license.

CREEL SURVEY (CENSUS)

A survey of anglers to determine angler origin, number of fish caught, species of fish caught, weights of fish and number of hours fished. Other information such as gear being used and information on the age of fish may also be collected.

CRITICAL FISH HABITAT

Any fish habitat required for the maintenance of a healthy fish population or otherwise identified as essential to the achievement of the Ministry's fishery program objectives.

CROWN LAND RECREATION PROGRAM

An initiative implemented in 1984 within the Northwestern Administrative Region. The intent of this initiative was to encourage non-residents of Canada to use existing tourist facilities and thereby contribute to local and provincial economies through use of Ontario's fishery resources and to generate revenue from non-resident use of Crown land. In addition, this program involves the designation of areas closed to non-resident camping to redistribute use from sensitive fisheries.

FISHING QUALITY

Refers to aspect of the total angling experience including success, diversity of fish species available to catch, broad size range of fish including trophy specimens, and type of angling environment (remote wilderness experiences or experiences which are more accessible by road or boat).

GOAL

A general purpose to which the Ministry aspires.

HARVEST

Fish taken and kept by fisheries resource users.

INDIAN SUBSISTENCE

Fish harvested by Indian people and used for personal consumption.

LIMITED ENTRY FISHERY

A fishery that limits the number of anglers permitted to fish on a lake. Harvest restrictions may also be applied.

MANAGEMENT

The judicious use of means to achieve specific ends. Management may have various levels of intensity.

MAXIMUM SIZE LIMITS

A management technique that protects fish above a specified length, i.e. fish caught that are smaller than the minimum length must be released.

OBJECTIVE

A quantifiable and attainable end which the Ministry's efforts are intended to accomplish.

OUTPOST

A form of tourist operation usually consisting of housekeeping accommodations located primarily in remote areas with limited access.

OVERHARVESTING

Harvest of fish by users which exceed the annual allowable yield.

POLICY

A government decision concerning the objectives to be achieved and the means of achieving them. For resource management planning, we are mainly concerned with the objectives, targets and strategies and tactics.

REHABILITATION

This term may be applied to both fish populations and fisheries habitat. In both instances rehabilitation denotes efforts to enhance or restore a degraded or stressed situation to its original condition.

RESIDENT OF CANADA

An angler whose principal residence is in Canada.

RESIDENT OF ONTARIO

An angler whose principal residence is in Ontario.

SLOT-SIZE

A management technique that protects fish within a specified length range, i.e. fish caught that fall within the length range must be released. The slot protects breeding individuals.

SPORT FISH

Any fish that are legally caught by angling; Usually include such species as: walleye, northern pike, perch, lake trout, brook trout, smallmouth bass, muskellunge, and lake sturgeon.

STRATEGY

Broadly planned actions or measures to achieve a desired end.

TACTIC

A method devised to achieve one or more strategies.

TARGET

A quantified end to be achieved or completed by a specific date.

TOURISM

The business of attracting visitors and catering to their needs and expectations; Visitors are travellers who will return home after their visit and who may return to pay another visit.

TOURIST OPERATION

An establishment or facility which consists of any one or a combination of the following: cabin establishment, camping establishment, cottage establishment, hotel, motel, motor hotel, outpost establishment, resort, houseboat operation or boat cache and is generally in the tourism business. (Tourist or tourism operator or outfitter have corresponding meanings.)

TROPHY FISHERY

A fishery managed for trophy opportunities. It provides the opportunity to catch a large fish.

WARMWATER LAKES

Those lakes other than coldwater lakes.

WARMWATER STREAMS

Those streams other than coldwater streams.

WORK PLAN

A plan prepared annually which defines what management activities are to be undertaken for that year. Direction is taken from the implementation schedule.

APPENDIX 1

PROPOSED CHANGES TO THE NORTHWESTERN ONTARIO STRATEGIC LAND USE PLAN

ITEM	NORTHWESTERN ONTARIO STRATEGIC LAND USE PLAN	CHANGES PROPOSED AS A RESULT OF FISHERIES MANAGEMENT PLANNING
Sport Fish Objective	To meet the demand for sport fishing consistent with the limits of an optimum sustainable yield.	To provide for optimum social and economic benefits derived through sport fish while maintaining self-sustaining populations.
Sport Fish Target	To meet the anticipated angling demand in the year 2000 of 247,000 angler-days at an angler satisfaction level of 2 Kg per angler-day.	To meet the projected demand of 228,920 angler-days; To reduce the harvest to a level within the allowable yeild on lakes that are currently over exploited; and To manage specifically for trophy (large) fish in selected waters.
Lake Trout Objective	To provide for the maintenance, protection and enhancement of lake trout populations, and to provide recreational angling opportunities to the general public for this species, based on an optimum sustainable yield.	To maximize high quality recreational angling opportunities and allow for subsistence harvest opportunities while maintaining self-sustaining populations.
Lake Trout Target	To produce 0.25–0.75 kilograms of lake trout per hectare per year from all lake trout waters. (61,000 to 182,000 kilograms per year in Sioux Lookout)	To maintain the harvest within the allowable yeild on lakes that have additional angling opportunities for Lake Trout; To reduce the harvest to a level on lakes that are currently over exploited; and To maintain specifically for trophy (large) fish in selected areas
Commercial Fish Objective	To encourage the harvest of commercial fish when it is biologically and economically feasible.	To maintain a viable industry by encouraging the harvest of commercial fish under the quota management system, where it is biologically, economically and socially acceptable.
Commercial Fish Target	To produce by the year 2000, 679,000 kilograms of commercial fish.	To encourage the harvest of whitefish to the level of the existing quotas (451,227 kg). To reduce the commercial fish quotas for walleye and northern pike to a harvest level established by MNR and the licence holder; and To convert commercial quotas of sport fish to tourism opportunities.

Bait Fish Objective	No separate objective established in NWSLUP. Bait fish were included as a component of commercial fish.	To provide for the harvest of bait fish for use by the sport fishery recognizing the overall social and economic benefits generated through the maintenance of a viable bait fish industry.
Bait Fish Target	To encourage the bait fish industry to meet the demands through natural and artificial culture.	To provide 230,000 dozen bait fish by the year 2000.
Muskellunge Objective	No objective established in NWSLUP.	To optimize high quality recreational angling opportunities while maintaining naturally reproducing populations.
Muskellunge Target	No target established in NWSLUP.	To maintain the harvest below the allowable yield. To manage for trophy (large) fish.

APPENDIX 2

JURISDICTION RESPONSIBILITY FOR LAKES STRADDLING SIOUX LOOKOUT ADMINISTRATIVE BOUNDARY

Lake Name	Responsible Jurisdiction	Lake Name	Responsible Jurisdiction
Keikewabik	Sioux Lookout	Tyo	Sioux Lookout
Cameo	Sioux Lookout	Snowflake	Sioux Lookout
Kangaroo	Sioux Lookout	Patte	Geraldton
Heathcote	Sioux Lookout	Shabuskwia	Geraldton
Nak Lake	Sioux Lookout	Poole	Geraldton
XF01-05	Sioux Lookout	Finton	Sioux Lookout
Master	Sioux Lookout	Takeoff	Sioux Lookout
WF81-15	Sioux Lookout	CN66-05	Sioux Lookout
Amik	Sioux Lookout	CQ61-23	Sioux Lookout
Bray	Sioux Lookout	CQ62-17	Sioux Lookout
Vaughan	Sioux Lookout	CQ61-22	Sioux Lookout
Lynx	Sioux Lookout	CQ62-19	Sioux Lookout
Crossecho	Sioux Lookout	CQ63-01	Sioux Lookout
Sandy Beach	Sioux Lookout	CQ64-18	Sioux Lookout
MacFie	Sioux Lookout	Ney	Sioux Lookout
WF44-15	Dryden	Rapson Bay	Red Lake
Whipper	Dryden	Roche	Sioux Lookout
Kukukus	Ignace	Rottenfish	Red Lake
Press	Ignace	Tinker	Sioux Lookout
Hut	Ignace	WH34-10	Sioux Lookout
Lake of Bays	Ignace	WH35-8	Sioux Lookout
Aerofoil	Sioux Lookout	WH30-6	Sioux Lookout
Latreille	Sioux Lookout	Allison	Sioux Lookout
Ponask	Sioux Lookout	Cook	Red Lake
Kabinawad	Sioux Lookout	WG32-3	Sioux Lookout
Badrock	Red Lake	WG32-1	Sioux Lookout
Jubilee	Red Lake	WG21-5	Sioux Lookout
Birch	Red Lake	Lac Seul	Sioux Lookout
Casummit	Sioux Lookout	Kakinawao	Sioux Lookout
Tarp	Red Lake	WH36-08	Sioux Lookout
MacDowell	Red Lake		
Roseberry	Red Lake		
Kaness	Sioux Lookout		
Sandy	Red Lake		
Stull	Red Lake		
Rocke	Red Lake		
Tew	Sioux Lookout		
Little Metig	Sioux Lookout		
Brennon	Nipigon		
Lenoury	Nipigon		
Redhead	Nipigon		
Mystery	Nipigon		
Windfall	Nipigon		
Rockcliffe	Nipigon		
Dawn	Nipigon		
Montcrief	Nipigon		
Wunnumin	Sioux Lookout		

*A mercator grid number has been used for unnamed lakes to facilitate their identification.

APPENDIX 3

SUMMARY OF PUBLIC CONSULTATION EFFORTS
SIOUX LOOKOUT DISTRICT

November 1986

Background Information Documents Distributed		185
Open Houses		4
Attendance:	Pickle Lake	6
	Savant Lake	12
	Sioux Lookout	45
	Hudson	15
		78
Meetings with Interest Groups		2
Questionnaires Received		42
	Residents	20
	Tourist Outfitters	19
	Other	3

September/October 1987

Tabloids Mailed Out		2,250
Draft Plans Distributed		210
Open Houses		3
Attendance:	Pickle Lake	4
	Savant Lake	15
	Sioux Lookout	45
		63
Meetings with Interest Groups		3
Letters to the Editor		1
Newspaper Articles		1
Phone Calls Received		6
Comment Sheets/Letters Received		54
	Residents	25
	Tourist Outfitters	25
	Other	4

SIOUX LOOKOU
FISHERIES MANAG
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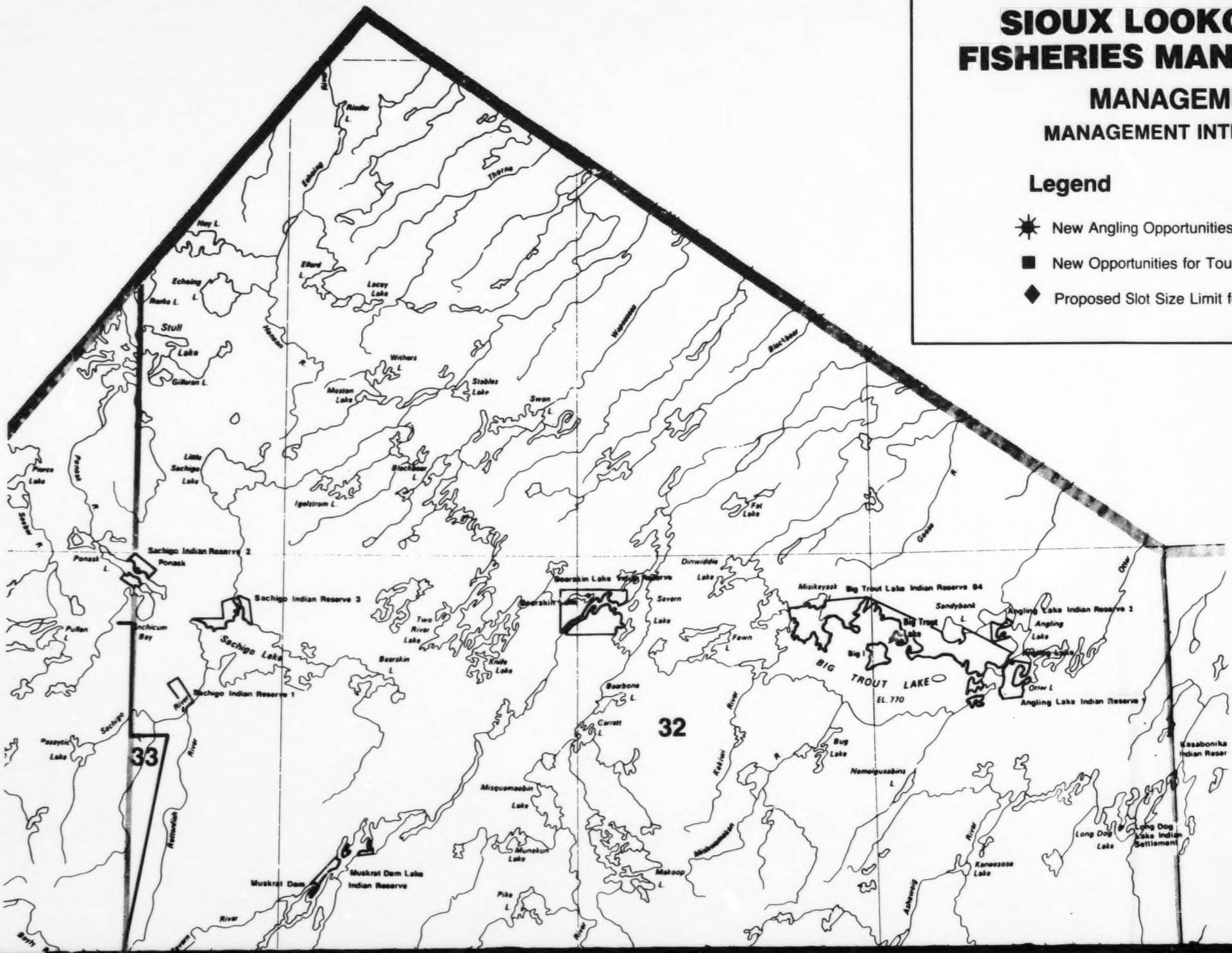
MANAGEMENT INTENT

Legend

- New Angling Opportunities for Re
- New Opportunities for Tourism D
- Proposed Slot Size Limit for Wal



General Tactics

- Prepare pamphlets which explain the fisheries management techniques (e.g. catch and release, slot size limits, trophy fisheries) that are available.
- Encourage anglers and tourist outfitters to use these techniques on a voluntary basis.
- Invite tourist outfitters to try these techniques on selected lakes on an experimental basis.

Walleye

- Establish a trophy limit where only one walleye within the possession limit may be greater than 50 cm. (19.5 in.)

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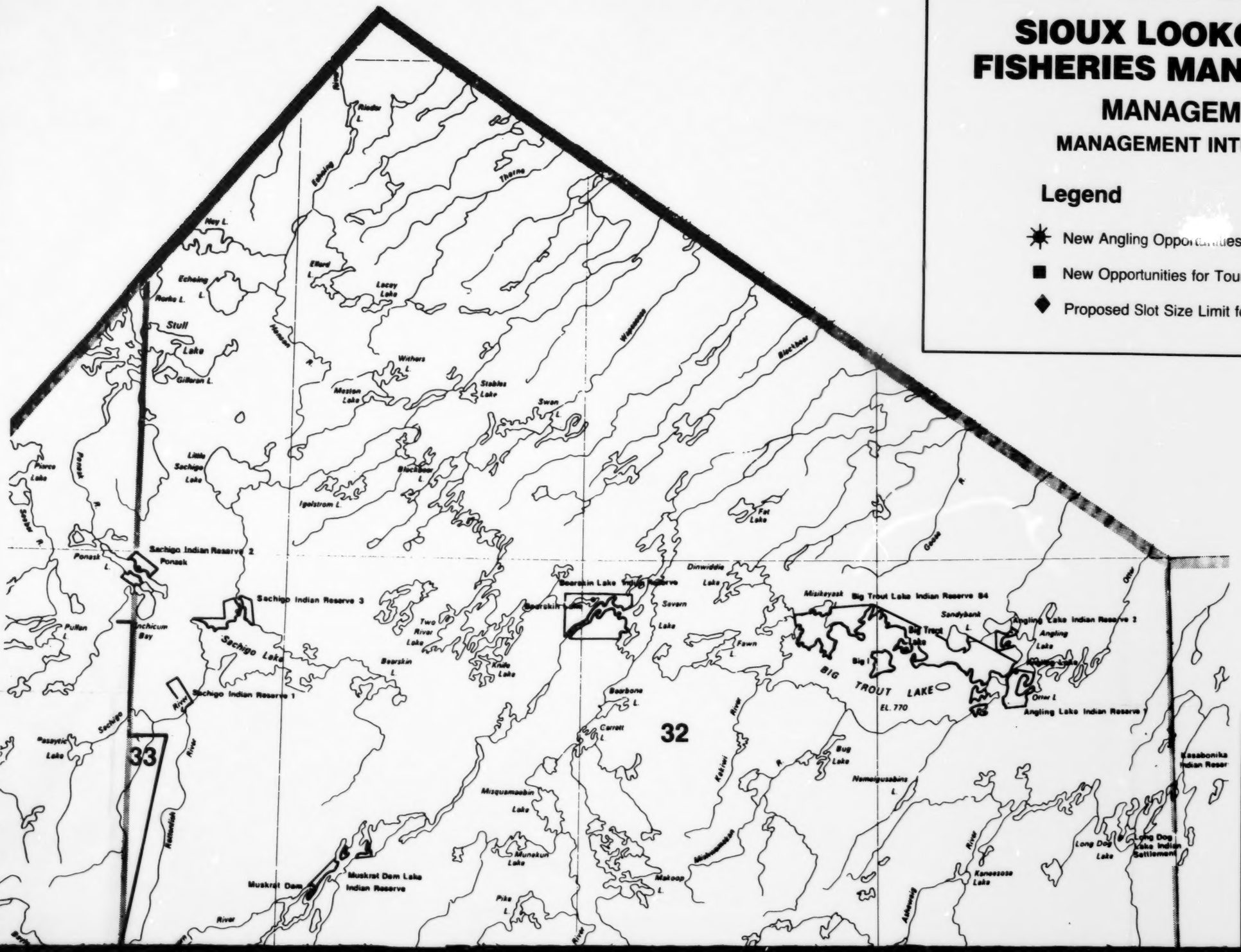
SIOUX LOOKOUT DISTRICT FISHERIES MANAGEMENT PLAN

MANAGEMENT ZONES

MANAGEMENT INTENTS AND TACTICS*

Legend

- ✷ New Angling Opportunities for Residents
- ■ New Opportunities for Tourism Development
- ◆ Proposed Slot Size Limit for Walleye: Lac Seul Zone 20



ZONE 32 — SEVERN RIVER

Management Intent

- Maintain the quality of the sport fish and lake trout fisheries.
- Provide the opportunity for additional tourism development.
- Crown land cottaging will be maintained at the existing level.

Tactics

- Assist in conversion of commercial fish

General Tactics

- Prepare pamphlets which explain the fisheries management techniques (e.g. catch and release, slot size limits, trophy fisheries) that are available.
- Encourage anglers and tourist outfitters to use these techniques on a voluntary basis.
- Invite tourist outfitters to try these techniques on selected lakes on an experimental basis.

Walleye

- Establish a trophy limit where only one walleye within the possession limit may be greater than 50 cm. (19.5 in.) for all management zones.

Northern Pike

- Establish a trophy limit where only one northern pike within the possession limit may be greater than 70 cm. (27.5 in.) for all management zones.

Lake Trout and Muskie

- Non-resident lake trout and muskie anglers who do not own real property in Ontario must stay at tourist establishments.
- Non-residents of Canada who are in the company of a resident of Ontario who may legally fish for lake trout may use that resident's limit to angle for lake trout.

Lake Trout

- Reduce daily catch and possession limit for lake trout from 3 to 2 in all management zones.

Commercial Fish

- Regulate commercial fishing activities seasonally and by gear type to minimize conflicts and incidental catches.

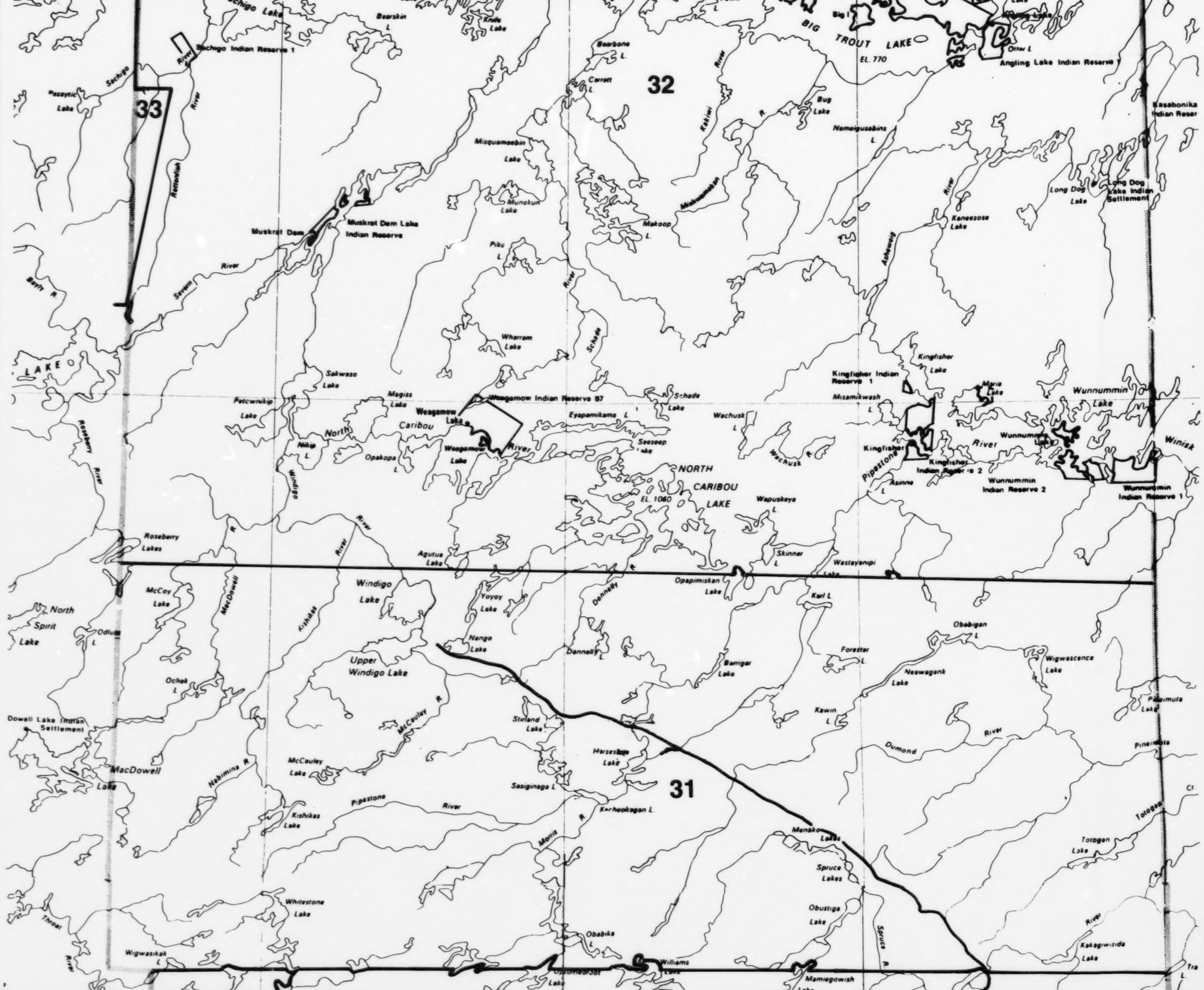
ZONE 37 — TROUT LAKE

Management Intent

- Maintain the quality of the sport fish and lake trout fisheries.
- Maintain the present number of tourism facilities catering to anglers.

Tactics

- Majority of this zone lies in Red Lake district.



ZONE 38 — SHARPHOUSE LAKE

Management Intent

- Maintain the quality of the sport fish and lake trout fisheries.
- Maintain the present number of tourism facilities catering to anglers.

Tactics

- Majority of this zone lies in Red Lake district.

ZONE 32 — SEVERN RIVER

Management Intent

- Maintain the quality of the sport fish and lake trout fisheries.
- Provide the opportunity for additional tourism development.
- Crown land cottaging will be maintained at the existing level.

Tactics

- Assist in conversion of commercial fish quotas of walleye and northern pike to sportfishing opportunities.
- Study idea of converting commercial fish quota of sturgeon to sportfishing opportunities.
- Work with Sachigo Lake Band to develop criteria for establishing a trophy lake trout fishery on Echoing Lake.

ZONE 31 — PIPESTONE RIVER

Management Intent

- Maintain the existing quality of the sport fishery.
- Manage for Crown land recreation opportunities.
- Provide the opportunity for additional tourism development.
- Crown land cottage opportunities will not be provided.

Tactics

- Assist in conversion of commercial fish quotas of walleye and northern pike to sportfishing opportunities.
- Study idea of converting commercial fish quotas of sturgeon to sportfishing opportunities.
- Continue to permit Crown land camping by non-residents at access points located within this zone.

ZONE 37 — TROUT LAKE

Management Intent

- Maintain the quality of the sport fish and lake trout fisheries.
- Maintain the present number of tourism facilities catering to anglers.

Tactics

- Majority of this zone lies in Red Lake district.
- No special actions have been developed for Sioux Lookout portion of this zone.

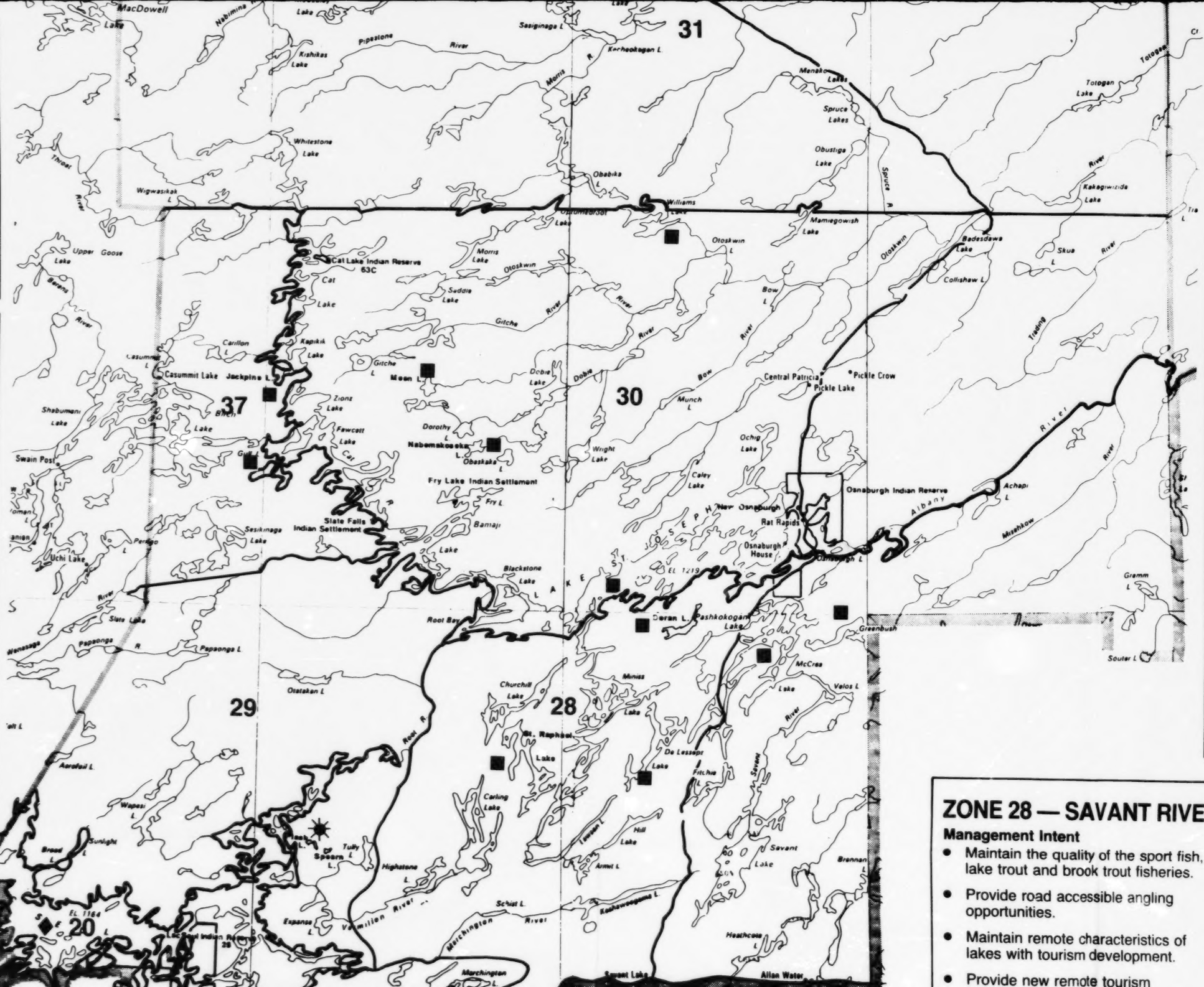
ZONE 29 — ROOT RIVER

Management Intent

- Maintain the quality of the sport fishery.
- Provide additional angling opportunities for resident anglers.
- Crown land cottaging will be maintained at existing levels.

Tactics

- Provide residents with additional angling opportunities on Flash, Spearn and Annis Lakes.
- Reduce overharvest of walleye on Wapesi, Twain and Tuktegweik Lakes.
- Extend the Restricted Crown Land Camping area on the Root River from Nattaway Falls to Root Bay on Lake St. Joseph.
- Apply the slot size limit for walleye proposed for Lac Seul to the Root River, up to Root Bay on Lake St. Joseph.
- Establish a year round sanctuary on the Root River, from Nattaway Falls to Root Bay on Lake St. Joseph.



ZONE 28 — SAVANT RIVER

Management Intent

- Maintain the quality of the sport fish, lake trout and brook trout fisheries.
- Provide road accessible angling opportunities.
- Maintain remote characteristics of lakes with tourism development.
- Provide new remote tourism

Tactics

- Assist in conversion of commercial fish quotas of walleye and northern pike to sportfishing opportunities.
- Study idea of converting commercial fish quotas of sturgeon to sportfishing opportunities.
- Continue to permit Crown land camping by non-residents at access points located within this zone.

ZONE 30 — CAT RIVER

Management Intent

- Maintain the existing quality of the sport fish, lake trout and brook trout fisheries.
- Provide additional angling opportunities for resident anglers.
- Maintain remote characteristics of lakes with tourism development.
- Provide new remote tourism development opportunities.
- Crown land cottaging will be maintained at existing levels.

Tactics

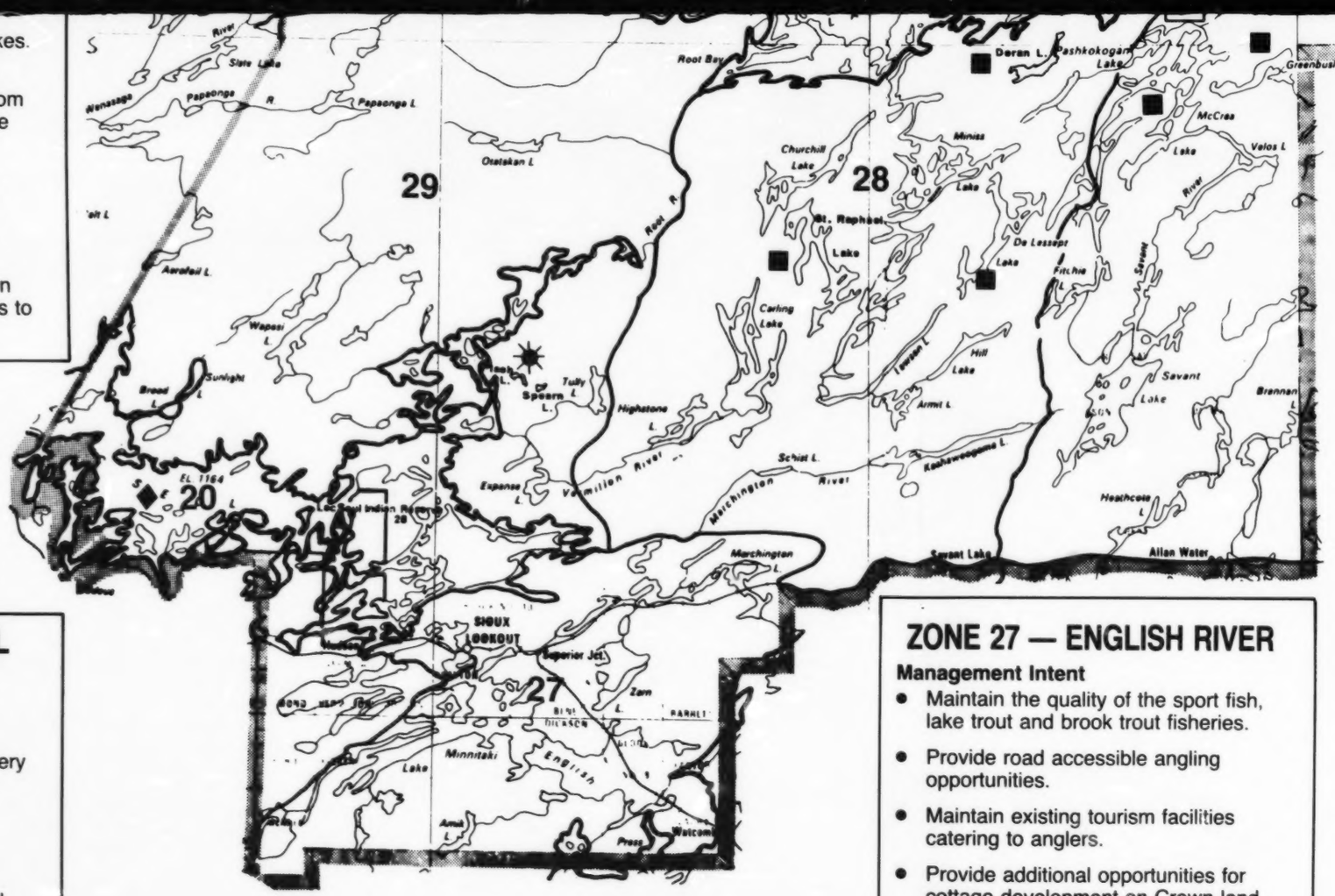
- Provide new tourism opportunities on Lake St. Joseph, Gull, Jackpine, Nabemakoseka, Williams and Meen Lakes.
- Assist in conversion of commercial fish quotas of walleye and northern pike to sportfishing opportunities.
- Investigate the feasibility of developing a public access point on the east end of Lake St. Joseph and designating the lake as a Restricted Crown Land Camping Zone for non-residents.

ZONE 28 — SAVANT RIVER

Management Intent

- Maintain the quality of the sport fish, lake trout and brook trout fisheries.
- Provide road accessible angling opportunities.
- Maintain remote characteristics of lakes with tourism development.
- Provide new remote tourism

- Reduce overharvest of walleye on Wapesi, Twain and Tuktegweik Lakes.
- Extend the Restricted Crown Land Camping area on the Root River from Nattaway Falls to Root Bay on Lake St. Joseph.
- Apply the slot size limit for walleye proposed for Lac Seul to the Root River, up to Root Bay on Lake St. Joseph.
- Establish a year round sanctuary on the Root River, from Nattaway Falls to Root Bay on Lake St. Joseph.



ZONE 20 — LAC SEUL

Management Intent

- Protect the remote recreational character of the lake.
- Maintain the high quality sport fishery on the lake.
- Crown land cottaging will be maintained at existing levels.
- Disposition of Crown land for development purposes which could increase the harvest of the sport fishery will be restricted.

Tactics

- Collect additional information through index netting, fish tagging and supplementary creel census.
- Introduction of a slot size limit for walleye.
- Continue to maintain trophy regulation for northern pike. (Only one pike within the possession limit may be greater than 70 cm.)
- Continue to apply existing access road guidelines.

ZONE 27 — ENGLISH RIVER

Management Intent

- Maintain the quality of the sport fish, lake trout and brook trout fisheries.
- Provide road accessible angling opportunities.
- Maintain existing tourism facilities catering to anglers.
- Provide additional opportunities for cottage development on Crown land.

Tactics

- Minnitaki, Abram, Pelican and Botsford Lakes: collect harvest information and update habitat survey.
- Collect lake trout harvest information on Zarn, Forty Mile, Vermilion and Little Vermilion Lakes.
- Permit the use of artificial bait only, when angling for lake trout on Little Vermilion, Vermilion, Zarn, Forty Mile and Minnitaki Lakes.
- Reduce the catch and possession limit for lake trout to one **or** close the season for lake trout, from March 01 to the third Saturday in May on Vermilion, Little Vermilion, Zarn, Forty Mile and Minnitaki Lakes.
- Improve information on critical habitat

ZONE 28 — SAVANT RIVER

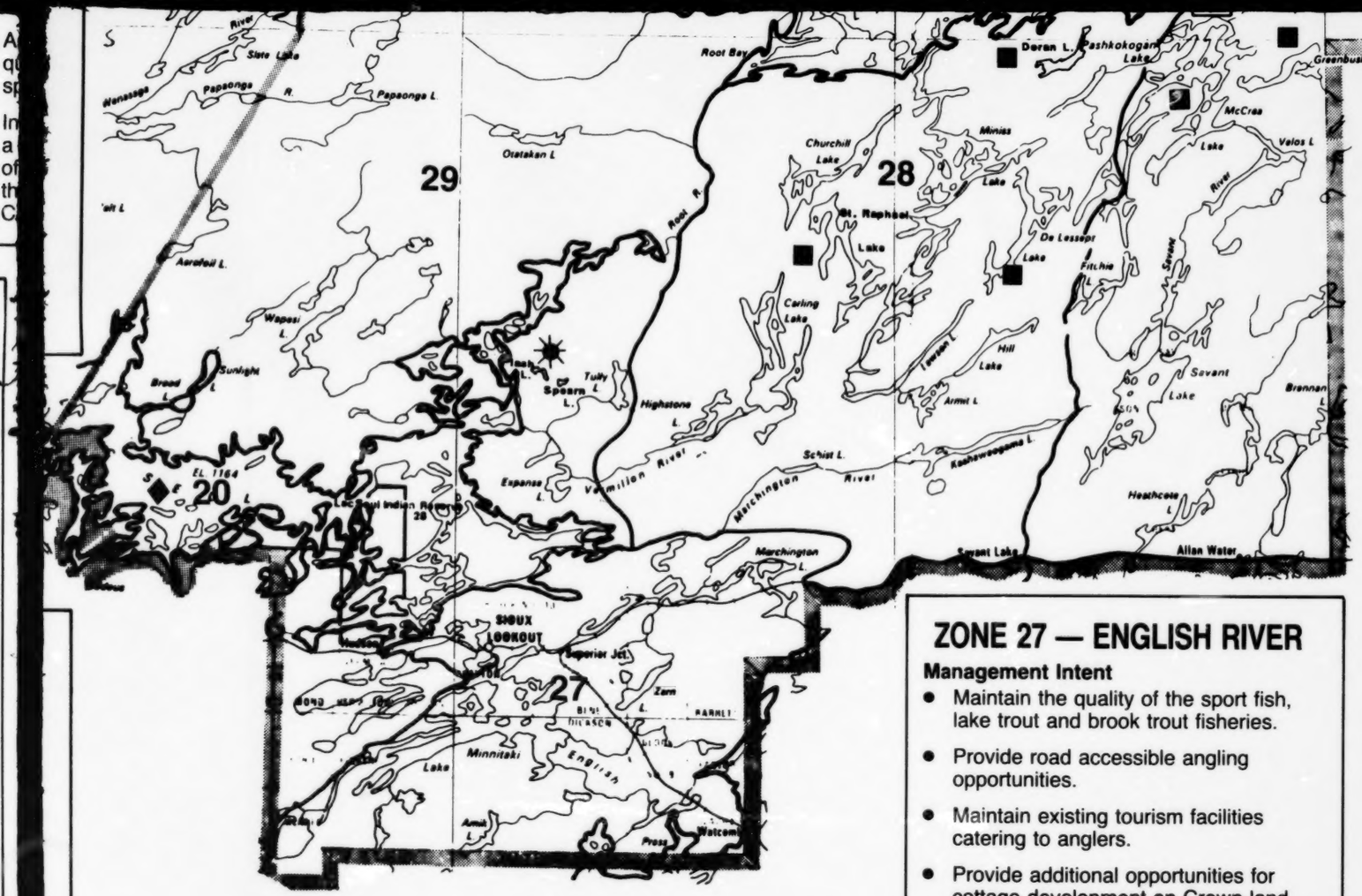
Management Intent

- Maintain the quality of the sport fish, lake trout and brook trout fisheries.
- Provide road accessible angling opportunities.
- Maintain remote characteristics of lakes with tourism development.
- Provide new remote tourism development opportunities.
- Provide additional opportunities for cottage development on Crown land.

Tactics

- Work in co-operation with camp operators on Savant Lake to:
  - collect creel data;
  - introduce voluntary creel limits;
  - establish trophy limits for walleye and pike;
  - introduce tackle restrictions.
- Provide new tourism development opportunities on DeLesseps, Doran, McCrea, Greenbush and St. Raphael Lakes.

* Please refer to Implementation Schedule for a complete list of tactics.



ZONE 27 — ENGLISH RIVER

Management Intent

- Maintain the quality of the sport fish, lake trout and brook trout fisheries.
- Provide road accessible angling opportunities.
- Maintain existing tourism facilities catering to anglers.
- Provide additional opportunities for cottage development on Crown land.

Tactics

- Minnitaki, Abram, Pelican and Botsford Lakes: collect harvest information and update habitat survey.
- Collect lake trout harvest information on Zarn, Forty Mile, Vermilion and Little Vermilion Lakes.
- Permit the use of artificial bait only, when angling for lake trout on Little Vermilion, Vermilion, Zarn, Forty Mile and Minnitaki Lakes.
- Reduce the catch and possession limit for lake trout to one **or** close the season for lake trout, from March 01 to the third Saturday in May on Vermilion, Little Vermilion, Zarn, Forty Mile and Minnitaki Lakes.
- Improve information on critical habitat and harvest for muskie.
- Assist in conversion of commercial fish quotas of walleye and northern pike to sportfishing opportunities.
- Investigate the feasibility of developing a public access point on the east end of Lake St. Joseph and designating the lake as a Restricted Crown Land Camping Zone for non-residents.

ZONE 28 — SAVANT RIVER

Management Intent

- Maintain the quality of the sport fish, lake trout and brook trout fisheries.
- Provide road accessible angling opportunities.
- Maintain remote characteristics of lakes with tourism development.
- Provide new remote tourism development opportunities.
- Provide additional opportunities for cottage development on Crown land.

Tactics

- Work in co-operation with camp operators on Savant Lake to:
  - collect creel data;
  - introduce voluntary creel limits;
  - establish trophy limits for walleye and pike;
  - introduce tackle restrictions.
- Provide new tourism development opportunities on DeLesseps, Doran, McCrea, Greenbush and St. Raphael Lakes.

* Please refer to Implementation Schedule for a complete list of tactics.